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How Charles Trunk Grows Walnuts

By William L. Teutsch

CHARLES TRUNK, veteran walnut grower of Dundee, Yamhill county, Oregon, as a result of 28 years of study and experience in growing walnuts, is one of the recognized walnut authorities in the Northwest. Mr. Trunk's orchard is generally recognized as one of the very best in this section and with an orchard to display in proof of his growing practices, Mr. Trunk usually occupies a prominent place on the annual program of the Northwest Nut Growers' Association, as well as on the programs of many other meetings where walnuts are discussed. Having taken a virgin tract of logged-off Oregon land, cleared it and planted it to walnuts, cared for it during the developing years until now it is a prolific producer. Mr. Trunk has an intimate knowledge of walnut production learned from the school of hard work and personal contact.

Mr. Trunk Tells His Story

"Tell me the story," I asked Mr. Trunk during a recent visit to his walnut grove, "of how you started and developed this orchard. In the first place, how did you come to select hill land in place of bottom land?"

"Low land usually has poor air drainage," Mr. Trunk replied, "and where there is danger of killing frosts either in the spring or fall of the year or where the winter temperature falls below eight degrees, conditions are dangerous for walnuts. My grove, you observe, is on a good slope, and it has elevation with good air drainage. For this reason we have had no difficulty with the cold in the 28 years we have been here.

"Walnuts must have a deep soil to grow in and for this reason I always stress the importance of a deep soil. Young walnuts may do well in shallow soil for the first 15 years. After this age, the trees will begin to suffer during the summer months and the trees will be in a weakened condition for the following year's growth. Lack of tree vigor means decreased crops. The soil should be at least six feet deep.

Seedlings Used in Early Plantings

"The first walnut trees I planted and the first trees generally planted in the early days were seedlings, because at that time grafted nuts were an unknown thing. While many of these seedling groves bear and produce well, only grafted trees should be used. All of our new plantings are the grafted Franquette on the rootstock of northern California black walnut, and in the light of present information, this is by far the best tree to use."

Mr. Trunk has hopes, however, that at least two or more types of nuts equally as good as the Franquette will be developed which will not be affected adversely by the same seasonal conditions which affect the Franquette. By having this variation in hardiness and resistance to disease, Mr. Trunk believes more uniform crops could be obtained.

"We prefer trees from six to eight feet in height," Mr. Trunk continued, "and grown on a two-year-old stock. Trees smaller than six feet can sometimes be used to advantage and, with additional good care, will grow into

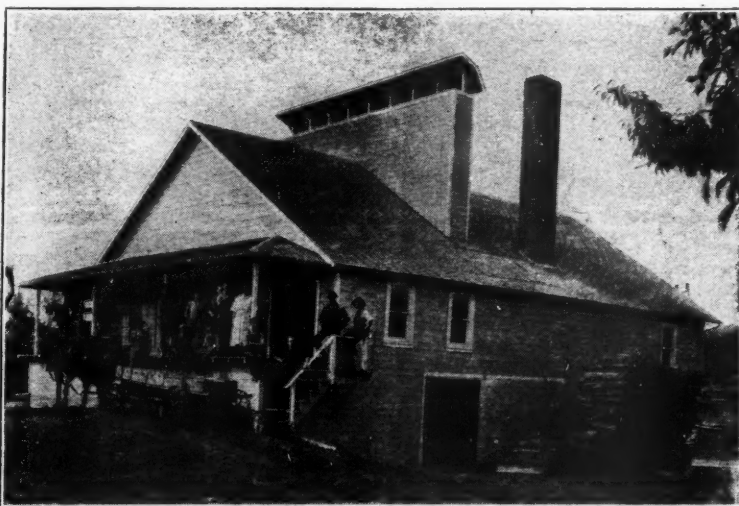
good bearing trees. We have found that the larger trees which are more than eight feet tall often suffer a shock by having a large part of their root system destroyed when they are dug from the nursery. After planting, we cut back the young trees to 18 inches and not more than 24 inches in height in order to equalize the root system with the least surface.

Allows Plenty of Room

"You cannot find in many of the old walnut groves in the Willamette Valley instances where the trees were planted too close. In the light of present information, we have found it best to use the square system of planting and put the trees from 40 to

60 feet apart, and personally I prefer the greater distance, as the 40-foot plantings are too close and many of the trees must later be removed.

"It is a matter of choice and the pocketbook of the individual grower as to whether or not inter-cropping is followed in a walnut grove. Walnuts planted alone will bring the quickest returns and begin to bear from nine to 10 years after planting, provided the trees have been well cared for. In a portion of our grove, we inter-planted with prunes and through careful soil management have been able to obtain excellent yields of Italian prunes, as well as to grow satisfactory walnut trees.



Walnut and prune drier on the Trunk farm at Dundee, Ore. Mr. Trunk is at the extreme right

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Avoid Clover and Root Crops

"There is one warning I want to give prospective walnut growers and that is never to plant clover or potatoes or other root crops in a walnut grove. These crops invite gophers, and gophers mean death to young walnut trees."

In planting, Mr. Trunk believes that the hole for a walnut tree should be not less than 32 inches in diameter and not less than three feet deep. He follows the practice of removing all damaged roots by cutting them back to a place where they are sound. The trees are planted two to three inches deeper than they stood in the nursery. Mr. Trunk follows the practice of putting the top soil in the bottom of the hole and if available usually places two or three forkfuls of stable manure around the sides of the hole. In the place of digging, blasting can be substituted, he says, provided the soil is not wet. Shooting during wet weather does more harm than good.

Methods of Pruning

There is some controversy among western walnut growers as to the method of pruning. Mr. Trunk's system is as follows: "The first pruning of the walnut is done at planting time and consists of pruning the roots and cutting the top back in the latter part of February or March. This cutting back is done at a height of 18 to 24 inches above a good bud. White lead or grafting wax is used to seal the cut. In April or May, when this young transplanted tree begins to grow, remove all sprouts after they have leaves, leaving two top buds to grow. When these two buds are four to six inches long, cut the lower one off and let the top one grow. The average tree growth with good care during the first year should be about 36 inches. The following year, the trees may be high enough to form the sprouts above a height of seven and one-half feet for the head of the tree. Forming the head is a matter of choice with the individual grower. Most of the older growers consider that seven and one-half feet from the ground is the proper height to head a walnut tree. The head or scaffold limbs of a walnut tree ought not to be formed in a space of less than 14 inches, otherwise it will bring the lateral limbs too close together, forming a bad head.

"Up to the age of 12 or 14 years very little, if any, pruning should be done on the inside of the tree. Instead, concentrate the pruning on the outside of the lateral limbs, lightening them and thereby inducing them to grow upward at an angle of 45 degrees. After a strong scaffold limb system is established, moderate thinning out of the tree on the inside should be undertaken. No cutting back of walnut limbs should ever be attempted, and moderate and sensible pruning should be done every year.

"The only time when walnut trees will not bleed is when the limbs are removed in July or August. The next best time to prune is in March and the early part of April. There also may be a time immediately after the harvest provided no freezing weather is encountered for several weeks after

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Fall Sowing for Spring Reaping

By Sada V. Blair

THIS is a plea for those gardens whose owners, at the first approach of fall days and cool nights, fold up their garden interests and put them away (like their summer clothes) until next spring; for those gardens which Easter finds still clothed in autumn's worn-out garments.

Gardens such as these, through no fault of their own, give to the family only a short season of pleasure. All the colorful and fragrant possibilities of early and late spring blossoms are entirely neglected; yet a little planning, a few dollars, and a few hours of work, would add at least six weeks of beauty and charm to the home grounds, not for one season only, but for many to come. What one sows in the fall, he reaps in the springs of many future years.

Fall Planting a Permanent Investment

Fall planting is a permanent investment whose returns cannot be measured by dollars and cents, but by that imperishable wealth—the enrichment of individual and family life. Reaching out even beyond the immediate home, there is a contribution to city or country life immeasurable in its influence.

Most of us think of spring only as a time of promise for summer's fulfillment, and yet it ought to be much more than that. In itself it should be a season of fulfillment—returning to us what we entrusted to autumn's care. There is an old adage to the effect that, "Foresight is better than hindsight," and nowhere is its truth better illustrated than in the matter of gardening, and more especially in the case of the early spring garden. The latter, being of necessity mostly a matter of bulbs and certain perennials, must be not only planned but planted the fall before.

It almost seems as if nature and the man who developed material for fall planting must have had the fruit grower's garden in mind. After the last of the fruit has gone to storage, or market, or to the pantry shelves, there comes such a let-up of the tumult of harvest, such a "lull in the day's occupation," that there is no

excuse for not hearing the call of the garden.

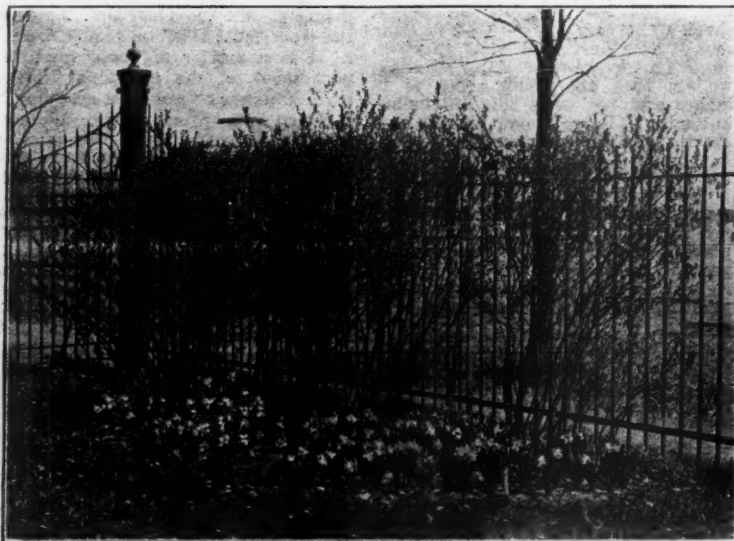
Fall Planting Saves Spring Work

In the spring, with pruning just out of the way, spraying and cultivating, to say nothing of the vegetable garden, demand the attention of the entire family. Not strange, then, that flowers, except on fruit trees, are a minus quantity around the homes of many of our fruit growers. It hasn't been called to their attention that fall-planted gardens are not only possible, but a positive cure for that barren, unhomelike look so many country places wear.

Again, in those cases where the care of the flower garden falls to the wife, autumn is a more convenient season than spring for attending to it. Spring for her, as for her husband,

has its tasks that cannot be put off until a more convenient season; but autumn invites one to putter out of doors, gaining health and happiness for one's self and beauty for the garden.

Those gardens which can command only a small amount of attention should be largely planted to bulbs and perennials, as these, once set, will need almost no care for several years. One of our most successful of bulb growers has this to say regarding their care: "All do well when left undisturbed year after year. This practice is recommended for the daffodils. And tulips suffer small loss if allowed to remain in a bed or border where they have done well, with annual doses of bone meal, and occasional liming."



A showy lot of bulbs planted between tall-growing shrubs. This plan is usually not a good one to follow with low, compact-growing shrubs

Good Results After 10 Years

One tulip border was allowed to remain undisturbed for 10 years, and the flowers were never larger or more perfect than in their tenth blooming. Beyond raking off the leaves in the early spring and keeping the weeds away from them, they had been left absolutely to themselves except at blossoming time when some member of the family was usually out admiring them. The professional gardener will scoff at such careless methods, but the housewife can afford to ignore his disapproval, for with all the other duties which fall to her for doing, she must turn to her garden as a place where she can rest and enjoy its beauty. Neither thing is possible if it becomes an exacting taskmaster.

A recent floral catalog remarked on the fact that two out of every three who make spring gardens never order anything for fall planting. It went on to say: "This must be because they do not know the harvest of joy and beauty which one can reap in the spring and early summer months, as payment for the little trouble and expense of planting bulbs in the autumn. If a beginner in gardening sought the flowers most certain of success for his initial trial, he would be directed to the fall bulbs."

First Cost is Entire Investment

Probably chief among the causes for this dearth of fall orders is the first cost of the bulbs. It should be borne in mind, however, that this first outlay represents the entire investment. There is no upkeep. Once paid for and planted, they lay the foundation for many years of garden pleasure, and they multiply with amazing energy. Bearing all this in mind, the outlay is negligible as compared with the returns.

Some whose only knowledge of bulbs is gained by way of park displays have an idea that they must be planted in circular or other formal beds; that their season is as short as their stems; that they must be taken up and something else planted in the bed to finish out the season. In other

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Maryland State Society Holds Mammoth Meeting At Hancock

By A. F. Mason

AT THE INVITATION of the Maryland State Horticultural Society, a joint summer meeting of the entomologists of the northeastern United States and the fruit growers of the horticultural societies of West Virginia, Virginia, Pennsylvania and Maryland of the Shenandoah-Cumberland Valley region was held.

Three hundred and fifty fruit growers from these states, and in addition some growers from New Jersey, Ohio and New York, representing about 25,000 acres of orchard, spent two days in the vicinity of Hancock, Md., on August 18 and 19.

Latest Spraying and Dusting Machines Shown

The latest spraying and dusting equipment, washing, grading and sizing machinery, and orchard tractors and cultivating implements were demonstrated, while experts advised the growers on problems of insect and disease control and the removal of spray residues from the fruit.

The orchardists met first at the orchard of J. Andrew Cohill. Here various spraying and dusting machinery manufacturers displayed their latest equipment and demonstrated its use. The Bean, Friend, Hardie, Niagara, Rex and Shunk machines were shown. Particular interest was shown in the new nozzle cluster recommended by Dr. W. S. Hough of the Virginia Agricultural Experiment Station, and demonstrated with the Bean

sprayer. This nozzle cluster consisted of four new Bean nozzles set in a row about two inches apart. The cluster is used on the end of the bamboo spray rod. It delivers about four and three-fourths gallons per minute and has an effective drive of about 15 feet when used with one-sixteenth inch apertures in the disk and 300 pounds pressure.

The Hardie Manufacturing Company showed a new and heavier engine on their machine.

The Friend Company attracted the attention of the growers with a new gun having a wider range and with only a quarter turn on the handle to operate it. They demonstrated spraying with volumes ranging from five gallons per minute at 300 pounds, to 30 gallons per minute at 600 pounds pressure, using their large four-cylinder machine.

The tractor hitch whereby the duster was driven and drawn by the tractor was a feature of the exhibit of the Niagara Sprayer Company. The Rex Liqui-Duster excited considerable interest because of its economy of material and method of application.

It remained for the last machine demonstrated, the Shunk Duster, to give the crowd quite the thrill of the afternoon. One blast of hydrated lime from the 14 horsepower motor

and large fan enveloped both trees and orchardists, convincing the latter of its capacity.

The trend of the refinements on the sprayers and dusters was definitely in the direction of greater power and pressure and finer division of the materials thrown.

Packing House of A. F. G. Visited

The next stop was at the packing house of the American Fruit Growers, Inc., at Tonoloway, Md. G. S. L. Carpenter, district manager of the American Fruit Growers, described the packing operations in the house and showed the time and labor saving devices in use there. The representatives of sizing and washing machines then demonstrated their equipment. Fruit was run over the Trescott, Virginia-Skinner, Cutler, Rex and Wington sizers, the growers comparing the efficiency of the sizing and any resultant bruising of the fruit.

The fruit cleaners exhibited and operated were the Cutler, Rex and Andy Moe. Makers of baskets, barrels and paper products for packing also had extensive exhibits.

Evening Meeting Proves Success

After a basket dinner on the lawn of the orchard manager's home, the evening meeting was called to order, Dr. E. C. Auchter, head of the Horticul-

tural Department of the University of Maryland, presiding. President R. A. Pearson of the same institution welcomed the visitors. Dr. A. L. Quaintance of the federal Bureau of Entomology stressed the necessity of removing arsenical residues from fruit this season in order to avoid drastic action by the federal or foreign food inspectors. Dr. J. R. Magness, horticulturist of Washington State College, described the experimental work done on this operation and stated that washing with weak hydrochloric acid seemed to be the most popular in the Northwest.

Dr. S. W. Frost of the Pennsylvania State College discussed the Oriental peach moth situation and gave the growers scant comfort when he admitted that no particular advance had been made in controlling this pest.

Vocal and instrumental selections, as well as readings, were given by several of the local ladies, including Mrs. J. A. Cohill.

Tour Several Orchards on Friday

On Friday morning, the tour proceeded to the Marvania Orchards where Elberta harvest was under way. The packing operations drew the attention of the crowd, the wiper for removing the fuzz from the peaches and the lid press for use on the round bushel baskets exciting particular interest.

P. D. Saunders of the Extension De-

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Transplanting Fruit Trees

By T. J. Talbert

University of Missouri

Part 1

This article is a digest and popular revision of Research Bulletin 33 of the Missouri Agricultural Experiment Station by the late J. C. Whitten, professor of horticulture. For the most part, and whenever possible, direct quotations have been made in order to preserve the style and forcefulness of the author. Due however, to rearrangements, additions and eliminations, which have modified or changed the meaning to a greater or less extent in some instances, quotation marks have been omitted.

IT IS GENERALLY advisable to transplant fruit trees as soon as possible after receipt from the nursery, providing the soil and weather conditions are suitable. If for any reason the trees cannot be transplanted at once, they should be heeled-in promptly. In preparing for this, remove the ties from the bundles and dig the trench deep and wide enough to accommodate the root systems. Work the soil around and among the roots, leaving no air spaces. When the trench is about half filled, it is often advisable to water the roots moderately, then finish filling the trench, covering half or more of the trunks or main stems of the trees with soil.

When the soil is too wet for heeling-in operations, the trees may be held in the original packages for a week or more without danger of injury by storing them in a damp, cool place, such as a cellar or building where the temperature may be kept above freezing. At the time of storage, the roots should be examined, and, if dry, the packing material around them should be sprinkled and kept moist until the trees are heeled-in or transplanted.

Protect Young Tree Roots from Freezing and Drying

The roots of young, dormant fruit trees are easily killed by freezing. They will not endure the low temperatures to which the tops may be exposed without injury. It is a fact, also, that trees are easily injured if the roots are allowed to dry out in handling.

The fact that the roots may be handled without cover for a time in a moist packing shed, or in the field during a moist, still day, should not encourage the belief that exposure to winds and a dry air may not speedily result in injury. In planting large orchard areas, the trees are frequently distributed ahead of the planters and the roots are exposed to the drying influence of sun and wind, until they are injured.

Exposure of freshly-dug trees for 15 minutes, if the day is dry and windy, and for more than 30 minutes on an average spring day, results in injury to the roots. All possible care should be used to avoid exposure in planting.

Pruning the Roots at Time of Transplanting

The Stringfellow system, in which the tree is reduced to a short trunk or stub above ground and a single tap root below, to no pruning of either top or root, has been tested, as well as many other systems of root pruning. An intermediate degree of pruning, the severity differing with the species, has given best results under central Missouri conditions. The following suggestions are based upon these results:

The root system of the tree should be pruned just before setting. The tap root should be preserved. The main lateral roots should be shortened to about six inches in length, and the small, fibrous roots should be pruned off. This is very important, since if they remain intact, they are an incumbrance to the tree. These

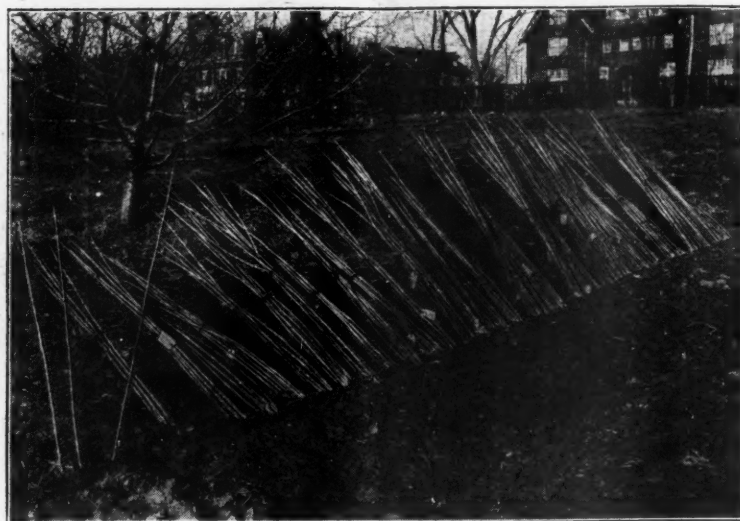
fibrous roots not only die, for the most part, but they prevent getting the soil in close contact with the essential roots.

Setting the Roots in the Soil

Preparing the Soil.—The holes which are to receive the roots of fruit trees should be dug just deep and broad enough to accommodate the natural

spread of the roots. This general statement is based upon observation of the growth of trees in various soil formations in the state and in which various soil treatments have been tested. The question of digging larger holes, and of shattering the sub-soil with dynamite below the bottom of the tree, has been given attention.

On all well-drained, typical fruit



Apple trees should be heeled-in immediately after being received in a well-drained place if the conditions are not favorable for transplanting

soils, deep plowing, thorough harrowing and digging the holes of sufficient size to accommodate the roots has proved to be the only treatment necessary to secure the maximum growth of trees. Digging large holes or dynamiting the sub-soil has not resulted in any advantage to the trees in such soils.

Spread of Roots.—In transplanting trees, it has been found that the roots of established fruit trees spread laterally to a much greater distance than do their branches. Often the roots of the older trees permeate the soil prepared for the replant before the end of the first season. This emphasizes the need of frequently cutting back the roots of the surrounding trees while tilling about the replant until it becomes well established.

Compacting the Soil.—In setting, the soil should be tramped firmly about the roots from the bottom of the hole upward, and an inch of loose soil should be spread over the tramped surface to prevent the soil from baking and drying out. Much of the mortality of fruit trees is due to bending the roots and failure to compact the soil about the roots in planting. Each layer of soil shaken in should be tramped fairly, from the bottom of the hole upwards. It is impossible to properly compact the soil if the hole is filled before it is tramped.

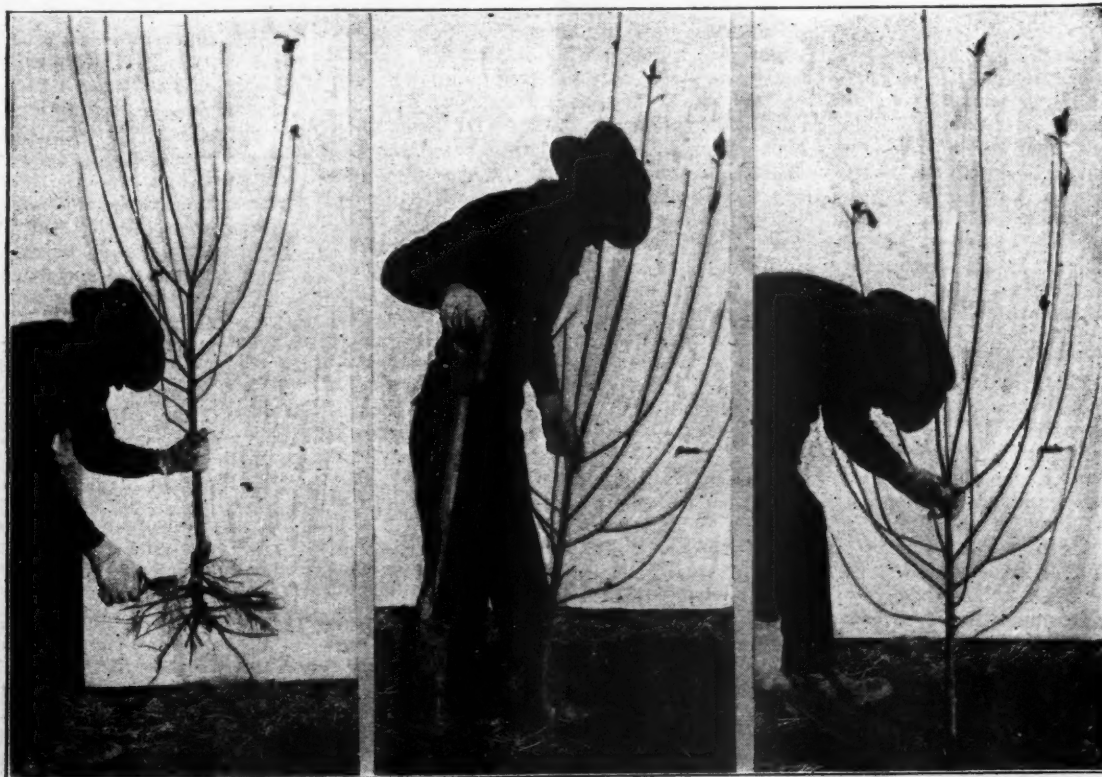
The Depth to Plant

The character of the soil and climate of a region should no doubt govern the depth to which the roots of a fruit tree should be set. For most sections it is generally recommended that the roots be set a little deeper than they stood in the nursery. Very deep planting has been emphasized in the prairie states of the Northwest, where there is danger of root injury by severe winters. Deep planting is also preferred in the plains where winter desiccation is marked and where rainfall is very limited. No doubt the roots should be set deeper in loose, sandy soils than in heavier soils. Most Missouri growers of long experience advocate setting a little deeper than the trees stood in the nursery. Many who have had limited experience set their trees much deeper than this, with the idea that the trees will stand straighter and firmer and that the roots are thus secured against drying out.

At this station, shallow planting has given better results than deep planting. This point has been repeatedly tested in different years, and the results of deep and shallow planting have also been observed in many of the orchards of the state. The results indicate that a majority of the trees set in the state are planted too deep.

If trees are set in the autumn, they may be set an inch or so deeper than they stood in the nursery. The soil at this season is aired and warmed to a greater depth. New root growth starts in early winter on the lower roots, which become established for a early spring growth. If trees are transplanted in the spring,

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Important steps in transplanting a two-year-old apple tree. Left—pruning the roots just before transplanting; center—compacting the soil about the roots; right—placing loose earth over surface to prevent baking of the soil

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There Should Be a Tariff on Bananas

ONE OF THE very serious factors which faces the American fruit industry is the enormous quantities of bananas imported into the country and the fact that no duty is paid on them under our tariff laws.

During 1926, the importations amounted to 58,550,364 bunches; in 1925 to 50,513,331 bunches, and in 1924 to 44,935,105 bunches. A bunch of bananas weighs 35 to 37 pounds on the average. At the rate of 36 pounds, the 1926 importations would weigh 2,107,813,104 pounds, which would allow about 18 pounds for every man, woman and child in the United States. New Orleans, the largest receiving point, handled 22,000,000 bunches in 1926 alone.

One can better appreciate the enormous size of this industry after seeing some of the great banana plantations. The writer saw some of these in southern Mexico last spring, but the plantings there are unimportant in comparison with those in Panama, Colombia and Cuba.

The industry has been very largely controlled by the United Fruit Company, which owns and operates enormous tracts of banana land in Central America. It also owns and operates a fleet of steamers primarily for transporting bananas, but which incidentally carries passengers, and it also has one of the most complete and efficient marketing and distribution systems in the United States. The company has grown to be one of the really powerful corporations of the United States, and the banana business and the absence of import duties have been chiefly responsible.

In recent years the Standard Fruit Company has become a factor in the industry. Recently, it was reported that these two companies are in process of merging and that independent growers are organizing co-operatively for purposes of competition. Various reports indicate that the banana plantations are being extended rapidly and that the volume of business will increase appreciably in the near future.

Such enormous imports of bananas materially affect the interests of fruit growers in the United States. When people eat bananas, they eat less of other fruits. This tendency

operates to lower the demand for and price of American-grown fruits. If fewer bananas were imported into the country or if the prices were maintained at a higher level, smaller quantities of bananas would be consumed and as a result, more American-grown fruits would be eaten, thus improving the prices paid for them.

There is only one way to correct the situation under the tariff policy of our country and that is for fruit growers to get the government to place a good strong tariff on bananas. Our government has given protection to industry and business by means of tariff laws. While we have tariffs on some of our agricultural products, the facts are they give little or no protection under the present methods of applying the tariff to agriculture. Here is an opportunity for the government to give some real tariff protection to fruit growers and there is no good reason why it should not do so.

We would greatly appreciate your views on this question. If there is sufficient interest in the matter, we shall gladly assist in doing what we can toward securing the enactment of a tariff on bananas.

The Lowering of the Rediscount Rate

THE RECENT ACTION of the Federal Reserve Board in lowering the rediscount rate from four to three and one-half per cent is arousing a great deal of comment among banking and business interests. The change has been brought about in all of the 12 federal reserve banks of the country. The bank at Chicago strenuously opposed the change and made it only after direct orders were received from the board. The Minneapolis bank reduced its rate voluntarily after the Chicago bank had lowered its rate.

The Federal Reserve Board, in ordering the reduction at Chicago, used powers given it in the Federal Reserve Act, but which it has never used before. Some bankers and politicians are claiming it was never intended the board should have this power, and steps will be taken, it is suggested, to have Congress at its next session pass legislation limiting the power of the board in this regard.

The change in rediscount rates is apparently regarded by bankers and money lenders as a very important matter, for they have been quick to voice their disapproval. Apparently, they feel that the reduction will operate against their interests.

This is not the first time that a change in federal reserve rates has evoked agitation. In 1919, the rate was raised from four per cent to seven per cent by several successive changes. The mild depression in business and the marked depression in agriculture which followed were laid to the change in rediscount rates by many farm leaders and others, but at that time many money lenders and politicians claimed that the change in rates could not have had any effect of this kind. After the depression, the rates were gradually lowered again until four per cent was reached.

The present rediscount rate of three and one-half per cent may be expected to have some important effects. The federal reserve banks hold in their vaults about one-half the gold of the world. A lowering of the rediscount rate will affect interest rates of all kinds, not only in this country, but throughout the world, because of the dominance of our financial system. Money will have lower earning power under the new rate. Consequently, the earnings of money lenders will be reduced, and the condition of money borrowers will be improved. Farmers should find it easier to finance themselves at lower rates or on better terms. Foreign borrowers of money in the United States should be able to secure money in the United States at lower rates, and

this will operate to increase the buying power of such countries and in turn stimulate the buying of more food and manufactured products from the United States. Lower interest rates in the United States should make money easier to obtain and should stimulate business and industry as well as agriculture, a thing which seems advisable at the present time. There is some danger, of course, that people will become careless and that a period of mild inflation will result, but the experiences of many during the past few years should cause them to be cautious in this regard.

Artificial vs. Real Fruit Juices

AT THIS TIME of the year, when growers are harvesting their crops and are making cider and other fruit juices, some information about soft drinks consumed by the public may be interesting. The writer has before him some statistics for 1923.

During the year ending June 30, 1923, there was made in the United States and its possessions 163,329,982 gallons of soft drinks. This amount included cereal beverages containing less than one-half per cent of alcohol, unfermented grape juice, cider and other fruit juices. It represents about 2,613,279,714 eight-ounce bottles or about 26 bottles per capita.

While the amount in itself is a striking thing, a still more significant feature is the fact that only about five per cent of the total was made from real fruit juices. Vast quantities of so-called fruit juices are consumed by the public, but in most cases these are artificially prepared juices and not real fruit juices. The public has no objection to real fruit juice; on the contrary, most consumers prefer it. The problem is apparently one of developing methods of producing, standardizing, preserving and distributing real fruit juice in a practicable manner, followed by the development of advertising and merchandising methods that will cause American consumers to use real fruit juices instead of uncertain artificial juices.

When One Method Doesn't Work, Try Another

LAST WINTER an attempt was made by the administration at Washington to place the federal farm loan activities under the jurisdiction of the Treasury Department. Congress refused to pass the bill covering this matter.

Immediately after the adjournment of Congress, Eugene Meyer was appointed chairman of the board, and other vacancies on the board were filled with men friendly to the Treasury Department and to Andrew Mellon. Thus an attempt was made, or rather is being made, to bring about by executive appointment what could not be accomplished by congressional legislation.

The appointment of Eugene Meyer will have to be confirmed by Congress before it can become effective. The indications are that a lively time will be had in Washington this winter in connection with the matter.

ONE OF THE favorite arguments of those who oppose farm relief legislation embodying the equalization fee principle is that such methods will not work.

If they will not work, then why should such persons so strenuously oppose their adoption? If the proposition is doomed to failure, the best way to kill it for good would be to pass the legislation and give it a chance to fail of its own accord.

We question the sincerity of those who take this viewpoint. Their attitude suggests that they fear the proposition will work if given a fair chance.

Rambles of Horticulturist

By C. E. Durst

AS STATED in the September issue, I visited the orchards and home of Senator and Mrs. H. M. Dunlap, at the time of the summer meeting of the Illinois State Horticultural Society in late July. The Dunlap orchards are located at Savoy, Ill., about four miles south of Champaign and Urbana. Senator Dunlap is one of the largest fruit growers of the state. The Savoy place comprises 320 acres, of which about half is in fruit. In addition, the Senator owns or has an interest in 2000 acres of land in southern Illinois, about 1500 acres of which are in apples, peaches and pears.

The Savoy orchards present an interesting story. It has been rather generally believed that good fruit can be grown only on rolling land. The Dunlap orchards at Savoy are on typical prairie lands of the corn belt, and they have given excellent results; in fact, the Senator says the Savoy orchards have been returning better profits than his southern Illinois properties. The natural richness of the soil appears to be one of the more important factors in the success of the Savoy orchards.

Started by Senator Dunlap's Father

The Savoy orchards were started by Senator Dunlap's father, although the present plantings were all set out by the Senator himself. The father, M. L. Dunlap, was originally a fruit grower and nurseryman in Cook county near Chicago. He was also editor of the *Illinois Farmer* and for 25 years wrote a column on agriculture for the *Chicago Tribune*. He took up the 320 acres at Savoy in its virgin condition and broke the land with a plow pulled by 12 ox teams. His first orchard of 60 acres was largely experimental in nature, due to the lack of specific information about varieties and cultural methods. The father died in 1875, and this old orchard was continued until 1885, when it was removed.

In the winter of 1885-86, a foot of snow fell in central Illinois in December and a blizzard occurred which toppled the temperature to 25 degrees below zero. Because of the immature condition of the wood, all apple trees in Illinois north of Mattoon were killed. Most growers concluded that apples were impossible of culture in central and northern Illinois. Most of those who dared to replant used Russian varieties, which the nurserymen began to promote at fancy prices. Senator Dunlap, however, proceeded to plant new orchards of the old standard varieties. His judgment in this regard was seriously questioned by his friends and fellow orchardists. Down at Centralia, Ill., at a horticultural meeting, one grower went so far as to request the young man to stand who was planting standard varieties, so that everybody could see him. This grower expressed admiration for the young man's determination but questioned his judgment. Senator Dunlap's action was that of a man who staked his all on an idea that he believed sound, and time proved that he was right.

Ben Davis Has Been Favorite Until Recently

The first planting made by Senator Dunlap consisted of 25 acres of Ben Davis and Willow Twig, set out in 1886. The Ben Davis has until recently been the Senator's favorite, and he has probably been the heaviest grower of this variety in Illinois. Only in recent years has he discontinued planting the Ben Davis and given preference to such varieties as Jonathan, Grimes and Minkler. In 1892, he planted a block of Minkler with Ben Davis as interplants. The Ben Davis were later removed. The Minkler has done very well at Savoy, and the trees in this block are yet practically all alive, large and in vigorous condition.

Clean cultivation is practiced in the Savoy orchards until about mid-

summer, when a cover crop of crab grass is allowed to grow. Both winter and summer sprays are employed. At the time of my visit, the apples had received seven summer applications. A great deal of fairly heavy pruning has been done in past years, but more recently only enough has been done to keep the trees within bounds. Nitrate of soda and sulphate of ammonia have been used more or less regularly to satisfy the nitrogen needs.

Senator Dunlap does his own marketing. He sells a great deal of fruit in small and large lots at the farm, and he stores large quantities in Champaign for winter sales. Being a large producer, he is able to quote on carlots at practically any time.

Cider and Vinegar Made in Large Quantities

In order to take care of culls and low grade fruit effectively, he has built a cider and vinegar plant at

Savoy. He has been state senator from his district for 32 years. His term of office has been unbroken, except between 1912 and 1916, and even in 1912 he received more votes than Taft and more than the defeated candidate for governor. He has been in the state senate 10 years longer than any senator now there. As state senator, he has promoted many useful measures, and he has always had charge of the bills of his alma mater, the University of Illinois. The growth of this institution from one building and 520 students in 1892 to an equipment aggregating many millions of dollars and a registration of about 12,000 each year, shows that his efforts in its behalf have not been in vain.

Mrs. Dunlap Has Been Real Helpmate

The story of Senator Dunlap cannot be adequately told without mention of Mrs. Dunlap. She has been a wonderful helpmate to Mr. Dunlap in the home, in business and in politics. She is also a graduate of the University of Illinois and married Mr. Dunlap when he was a young man with a lot of ambition but not much else. She has helped the Senator step by step in his work and in his planning and deserves credit with him for the success they have gained. She and the Senator suffered a great blow in the loss of their four children. Two of them died in infancy and the other two, when five and nine years old, succumbed within three days of each other from diphtheria. While this made life very hard for a time and left its impress even until the present day, Mrs. Dunlap soon began to devote as much of her time and effort as she could toward helping others. For 30 years she has been a lecturer of note on household science and other subjects of interest to farm women at farmers' institutes, women's clubs and numerous other organizations. She was one of the principal speakers at the meeting of state officials held years ago during the governorship of Honorable Frank O. Lowden, at which the foundation plans for the present Illinois highway system, the greatest in the country, were laid.

The Home of the Dunlaps

The home of the Dunlaps must receive mention. The house is English colonial in type and is built of brick and has a green tile roof. It is located on a large, broad and beautifully landscaped lawn just west of the Illinois Central Railway and the main concrete road between Chicago and Cairo, and it is seen and admired by thousands of travelers. No mere man, especially one untrained in architecture and household economics, can begin to describe this house. One outstanding feature is a large living room which extends nearly across the south end of the main floor. Just outside of this is a large sun parlor with a fireplace. The kitchen will probably be the most interesting to women readers. It is fairly large. The floor is of colored tile, and the walls and ceiling are of white glazed tile. One of the prominent features is what Mrs. Dunlap calls her "sink table." It is located at one side of the kitchen but well away from the wall so that she can readily work all around it. Its marble top had to be specially made. Besides having ample space for paring and preparing foods, dish washing, etc., the table has commodious sinks and a number of water faucets.

To the south of the kitchen is a breakfast room, and to the east is the dining room. I wish that every fruit grower's wife could see this dining room. Its furniture and furnishings are the most pleasing I have ever seen. Between the kitchen and these two eating rooms, there are waiters through which the food can conveniently be handled. Long drawers which pull out on both sides make it easy to put in the knives, forks and spoons in the kitchen and take them

(Concluded on page 22)



Senator and Mrs. Henry M. Dunlap in front of their fine home at Savoy, Ill.

The ability of the corn belt land to produce fruit is shown by Senator Dunlap's yields. Practically all his orchards were planted between 1886 and 1893 and they were in their prime between 1911 and 1919. In 1915, he obtained 85,000 bushels from 120 acres. Some varieties averaged 1200 bushels to the acre, and quite a number of trees produced as high as 60 bushels each.

Savoy. Another is maintained in southern Illinois. He manufactures at Savoy 40,000 to 60,000 gallons of vinegar a year besides the cider that is sold. The vinegar is sold in barrels and bottles. A special label is used on the bottles. Vinegar is also sold in large quantities in gallon glass jugs and in barrels.

Senator Dunlap, besides being an orchardist, has been active in public



The Illinois State Horticultural Society holding one of its summer sessions on the Dunlap lawn

How to Register a Trade-Mark

By Leo T. Parker

A TRADE-MARK is a mark, symbol, or the like, that has been affixed to salable merchandise. It must be the name or indicate the origin of salable goods. Practically all men of business have occasion to register a trade-mark. Therefore, the simple rules for filing an application for registration of a trade-mark are the means of effecting beneficial service.

One good reason why the owner of a mark should have it registered is that if he is the first to employ it in continuous use, he owns it *exclusively* in the whole United States, whether the goods bearing the mark are distributed in a small, medium or extensive territory. On the other hand, the owner of an unregistered mark can prevent another from using it *only* in territory in which the merchandise is on continuous sale. Moreover, the owner of a registered mark has the right to institute legal proceedings in the United States court against an infringer and may be awarded increased damages, and he can prevent the importation of merchandise bearing an infringing mark.

A trade-mark may be filed for registration at the low cost of \$10 for the government fee, plus the incidental expenses. It continues for a period of 20 years and may be renewed indefinitely for 20-year periods at a cost of \$10 for each renewal. The mark must be new with respect *only* to the same or similar class of merchandise on which it is used. But it must be sufficiently different from other marks previously used on that class of merchandise so that purchasers will not be deceived. Contrary to the belief of the majority of persons, the mark must have been used either in interstate, foreign or Indian tribe commerce before an application for registration is filed.

Excerpts taken from the booklet, "Trade-Marks, Prints and Labels," which is published by the Patent Office and will be sent free to anyone who sends the request to the Commissioner of Patents, Washington, D. C., are as follows:

"The (Patent) Office cannot give advice as to whether the owner of a mark should apply for registration thereof,

or whether it is already used by another. Nor can the (Patent) Office, in advance of the filing of an application, make searches to determine the registrability of a mark. . . . It is advisable to search here before adopting a trade-mark so as to avoid conflict. . . . The Office, ordinarily, does not pass upon the applicant's right to use the mark, but determines only the right to registration. Registration does not create the right to use the mark but gives prima facie right to prevent others using it. . . . Registration gives prima facie evidence of ownership, the right to sue in the United States courts with increase of damages and destruction of infringers' labels, etc., together with the right to prevent importation of goods bearing an infringing mark. Many foreign countries will not register a mark for a citizen of the United States unless it is registered in the United States Patent Office. . . . The Registration of a mark protects not only that mark but any mark so like it as to cause confusion or mistake or to deceive purchasers. . . . The law makes no provision for the registration of marks used only in connection with service, such as insurance, bonding, banks, collection agencies, laundry work, cab service, and the like."

For the purpose of enabling persons to properly classify their marks, the following information is prepared in simplified form:

1. Any trade-mark that has been in continuous and proper use since February 19, 1895, may be registered under the act of February 20, 1905.

2. Any trade-mark that has been used in bona fide interstate, or foreign or Indian tribe commerce for not less than one year may be registered by its owner, under the act of March 19, 1920, except those marks which contain:

Immoral or scandalous matter; or the flag or coat of arms or insignia of the United States or any state or city or foreign country; or a picture adopted or used by a fraternal society; or the name, distinguishing mark or

emblem or the like of any club, society or organization.

3. Any trade-mark may be registered immediately after its use under the act of February 20, 1895, if it has been used in bona fide interstate, or foreign or Indian tribe commerce and provided the mark does not contain the four restrictions listed under No. 2 above.

A mark which consists of the insignia of the American Red Cross Society cannot be registered. And a mark which consists of the name of an individual or firm, to be registered under the act of February 20, 1905, must be written or printed in a distinctive manner, otherwise it may be registered under the act of March 19, 1920.

Ordinarily, a mark which is a name that describes the product, or a geographical name, or a signature, should be registered under the act of March 19, 1920.

However, if an applicant mistakenly requests the Patent Office to file the mark under the improper act, he may correct the application upon notification from the Patent Office.

After the mark is properly classified, the firm should prepare, double-spaced and typewritten on one side of a single sheet, the following:

"PETITION AND STATEMENT.

"To the Commissioner of Patents:

"John Doe & Company, a firm domiciled in New York, New York, doing business at 1415 Ludlow street, New York, New York, and composed of the following members, John Doe, Thomas James, and Edwin Howe, all citizens of the United States of America, have adopted and used the trade-mark shown in the accompanying drawing for (kind of foods or ingredients of foods in this space) in class 46, foods and ingredients of foods, and presents herewith five specimens showing the trade-mark as actually used by applicant upon the goods, and requests, that the same be registered in the United States Patent Office in accordance with the act of February 20,

1905 (or March 19, 1920. Select the act as above explained.) The trade-mark has been continuously used and applied to said goods in applicant's business since (mention earliest date of use in this space). The trade-mark is applied or affixed to the goods or to the package containing the same, by (in this space state method of attaching mark to goods).

"The 3rd day of May, 1927.

"John Doe & Company,

"By Thomas James, (full signature of any member of the firm).

"A member of the firm."

The applicant, also, must prepare the following double-spaced typewritten sheet. It is the OATH and must have a notary's seal thereon.

"State of New York,

ss:

"County of New York,

"John Doe, being duly sworn, deposes and says that he is a member of the firm, the applicant named in the foregoing statement; that he believes the foregoing statement is true; that he believes said firm is the owner of the trade-mark sought to be registered; that no other person, firm, corporation, or association, to the best of his knowledge and belief, has the right to use said trade-mark in the United States, either in the identical form or in any such near resemblance thereto as might be calculated to deceive; that said trade-mark is used by said firm in commerce among the several states of the United States (and between the United States and foreign Nations and Indian tribes); that the description and drawing presented truly represented the trade-mark, sought to be registered; and that the specimens show the trade-mark as actually used upon the goods.

"John Doe

(Full signature of applicant here)

"Subscribed and sworn to before me, a notary public, this — day of —, 1927.

(Notary's seal here)

"Harry Brown,
Notary Public."

Notice: If the trade-mark never has been used in trade with foreign (Concluded on page 12)

Vermont Pomologists Meet at Vergennes

By M. B. Cummings

University of Vermont

THE THIRTY-FIRST annual meeting of the Vermont State Horticultural Society was held at E. N. Loomis' orchard at West Addison near Vergennes on August 31. The Loomis farm, which borders on the lake and commands a wonderful view, was a beautiful place for the meeting. By 10 o'clock in the morning, cars had arrived from all parts of the state and from New York and Massachusetts, filled with apple growers and members of their families. Even the weather favored the meeting.

The morning was spent in an orchard tour. Mr. Loomis led his guests through his orchards, which consist of 7000 trees now 16 years old and bearing a crop of 10,000 barrels. Most of the trees were a marvelous sight with their beautiful red fruit. The crop is comprised of McIntosh, Northern Spy, Greening, Tolman Sweet and Winter Banana. Mr. Loomis showed several trees on which bridge grafting, top grafting and tree surgery have been practiced. Especially interesting was a group of Wealthy trees topworked with McIntosh. The trees will grow higher and be less graceful because of the grafting, but in a few years they will be producing a fine crop of McIntosh which will be more profitable than the Wealthy.

Inspect Barrel Manufacturing Plant

Mr. Loomis showed the visitors where the apple barrels are made on his farm. These are especially constructed of three-bushel capacity. In his orchard were seen examples of the

use of wire guards and clean cultivation for combating mice.

All the guests sat under the trees in the grove for the picnic luncheon, lemonade and ice cream which were served by the host. Many people took advantage of the warm day and the lake to enjoy a swim. Others climbed into the tower to look at the scenery of Vermont and New York state, just across Lake Champlain.

J. Mcl. Stevens of Orwell, president of the society, had a clever manner of introducing the speakers. E. N. Loomis welcomed his guests, saying the number of automobiles rather disposed of the idea that farming, and the apple industry in particular, is down and out.

Wholesale Buyer and Successful Grower

Mr. Loomis, who is a large wholesale buyer, with headquarters in New York City, and a successful grower in Vermont, spoke instructively as follows: "This valley is ideal for apples because of the climatic conditions, nature of the soil, slope of the land and beneficial influence of the lake. Apples of the highest quality are produced and the growers are near the greatest markets in the world." He especially praised the McIntosh as a good apple, which grows to perfection in the Champlain Valley and com-

mands a high price. Furthermore, the McIntosh is an annual, not a biennial variety.

In regard to thinning apples, Mr. Loomis said that in his opinion the McIntosh rarely needs thinning, as it seldom oversets, and even if it does, there is little to be gained by thinning, especially if successive picking is done and the smaller or poorer ones are allowed to remain until the last of the picking season.

In comparing McIntosh and Delicious, Mr. Loomis said that he believed for most of northern New England the McIntosh is far superior; but some doubt the inferiority of the Delicious.

The Loomis orchards have made a remarkable growth on what seems to be a strong and rather heavy clay loam, which many orchardists have regarded as unsuited to most varieties of apple, especially the McIntosh. However, apples of all varieties in the Vergennes orchard were of very good size and color.

The response to the welcome was given by Ernest West of Dorset. He expressed the appreciation of the crowd for Mr. Loomis' hospitality.

Gives Advice on Mice Control

E. M. Mills, specialist in rodent control of the federal department, gave some real information to

orchardists who are troubled with mice. The two kinds which do the most harm to Vermont crops are the field mice and the pine mice. The group was horrified to learn that one pair of field mice in a single year breed 1,000,000 mice, if none die. To prevent injury from field mice, he advised cultivation and a clean orchard. Mr. Loomis' orchard had been cultivated by a Clark's cutaway extension harrow plow, operated with a tractor, which not only cultivates beneath the trees, but tears apart the nests of mice. Grass should be kept away from the trees, and high wire guards should be used to protect the trees. Some repellent washes work; others do not.

For the pine mice, the speaker suggested poison stations with the strychnine poison spread by a starch paste over wheat and covered with paraffine to keep away mould. He demonstrated various types of home-made and commercial stations. These are generally put out in October or November and should be carefully watched.

Hackett Represents Pomological Society

E. A. Hackett of Bolton, Mass., representing the American Pomological Society, spoke briefly on developing the fruit business by means of national advertising. Through his courtesy, a crate of peaches was distributed among the audience. Mr. Hackett spoke of the eating apples for (Concluded on page 16)

for October, 1927

Monthly Market Review

THE FOLLOWING summary of the fruit marketing situation was furnished by the United States Bureau of Agricultural Economics on September 10:

"Fruit prices were rather moderate in late summer, partly because of variable quality and condition and because the fall market level had not yet been established. Supplies were not excessive, so that the blame for lower returns than prevailed a month or two ago cannot be laid entirely to supply, though gradually increasing shipments doubtless had something to do with the situation. The general market situation still was considerably stronger than a year ago, except for western grapes.

Still Going Down

"Another 3,500,000 bushels were deducted from the total apple crop, according to September estimate, and half a million barrels from the commercial crop. This leaves the total production somewhat less than 124,000,000 bushels and the expected commercial crop at 24,200,000 barrels. Prospects have been decreasing month by month. Drought in the Great Lakes region was chiefly responsible for the latest decreases, and this condition also cut further the eastern grape crop. The estimate for California grapes was practically unchanged, but about 10,000 tons were taken off the states from Michigan eastward. The New York grape forecast, however, was raised by 2000 tons.

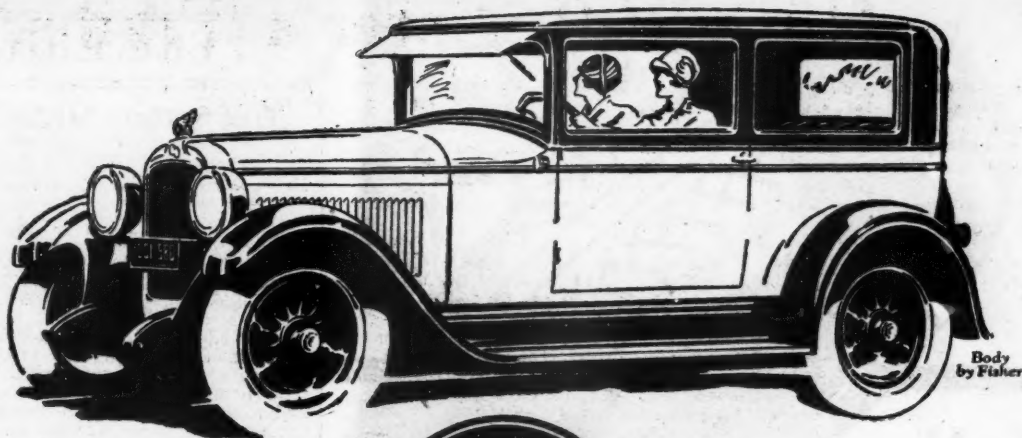
"Condition of the pear crop showed no material change; peaches declined slightly. A little improvement was noticed in Florida citrus, but all citrus fruits still are far below the average condition of the past 10 years and 15 to 25 per cent below the report for September, 1926. On account of the increasing acreage, several California fruits show an increase in production. Dry prunes in California are estimated at 211,000 tons, compared with 150,000 tons last year, and apricots on a fresh basis at 187,000 tons, compared with 176,000 in 1926. Dried prune production in the Northwest may total 50 or 60 million pounds, which would be at least 25,000 tons. Fresh prunes were moving actively from the Pacific Northwest.

Grapes Important

"Grapes compete with apples for the center of the stage during September and October, and some seasons they exceed the apple output for these months. In 1924, the September-October total movement of grapes was 55,000 cars and in 1925 about 69,000 cars. Respective shipments of apples during the corresponding periods were 54,500 and 66,000 cars. Conditions were reversed last season because of the exceptionally heavy apple crop and the lighter forwardings of western grapes.

"Though still lagging behind last year's early record, California shipments were fast gaining and should soon catch up with the 1926 total to date. Arrivals from eastern grape districts have been very light. At 60c-75c per crate, f.o.b. cash-track, California table stock was ranging slightly lower than last season. Juice varieties could be had during early September at \$32.50-\$67.50 per ton, including lugs—low price being paid for Muscats and highest price for Alicante Bouquets. Price trends were downward with the advance of the season.

"Production of wine grapes in California has been increased 10 per cent over last year's figure, and table stock shows a gain of 27 per cent but raisin varieties are only four per cent heavier than in 1926. California growers are being urged locally to ship only good quality fruit and to restrict peak shipments to 800 cars daily, with no picking or shipping on Sundays. They are cautioned not to market raisin varieties fresh, unless assured of a price which will mean a profit. Production of dried raisins last season was increased about one-third to a total of 272,000 tons, and it now looks as if that tonnage might have to be further increased this year. It takes



\$745

2-DOOR SEDAN

Now-

Your dollar buys more than ever with a *Finer Pontiac Six* selling at lower prices

Ever since it flashed into the field, the Pontiac Six has won its success on the basis of dollar-for-dollar value. When introduced, it represented a new idea in low-priced sixes—the idea of truly high quality in design, performance and appearance. And it won world record public acceptance almost overnight.

Yet now your dollar buys more than ever—for today's Pontiac Six embodies many improvements in the original Pontiac Six design. It is now offered with beautiful new Fisher bodies in new

Duco colors and every body type has been reduced in price!

You may have heard that the Pontiac Six is a marvelous car for performance.

You may have admired the sparkling beauty of its Fisher bodies.

You may have read that a new measure of value was created by this finer Pontiac Six selling at lower prices—but until you actually see today's Pontiac Six, and actually sit at the wheel, you cannot know how fine a six can now be bought for \$745!

New lower prices on all passenger car body types

(Effective July 15)

Coupe	- - - - -	\$745
Sport Roadster	- -	\$745
Sport Cabriolet	- -	\$795
Landau Sedan	- -	\$845
De Luxe Landau Sedan		\$925

The New Oakland All-American Six, \$1045 to \$1285. All prices at factory. Delivered prices include minimum handling charges. Easy to pay on the General Motors Time Payment Plan.

OAKLAND MOTOR CAR COMPANY, PONTIAC, MICHIGAN

The New and Finer PONTIAC SIX



four tons of fresh grapes to make one ton of the dried product, so that most of the raisin varieties are used for raisin production within the state.

"Eastern grape growers should get good prices for their tonnage this year. Though considerably lighter than last season, production in the eastern regions is somewhat greater than the very light crop of 1925, when market values were high. It seems likely that prices this season may range between those of 1925 and those of last year.

The Apple Situation

"United States is not the only country reducing its apple production estimates. Forecasts of the commercial crop in Canada have been cut each

month since June. Instead of totaling 3,800,000 barrels, Canadian production for market purposes now looks like less than 3,000,000 barrels, or just about the same as last season. Rapid development of scab and insect injuries are the cause. British Columbia may have one-fifth fewer commercial apples than in 1926. European apples are doing better than last year, though not yet up to average. Quality of the British crop is said to be the worst in 10 years. British markets were glutted with inferior fruit, selling at 50 cents a bushel. Very few first-class apples were arriving from home orchards or from the continent. American fruit may not meet such severe competition as first expected. "Trade reports of early sales of fall

apples continue to show encouraging price levels. Extra fancy boxed fruit, in the Wenatchee district of Washington, was bringing approximately the following prices for most-desired sizes: Rome Beautys \$1.75-\$1.85, Spitzenburgs \$1.85-\$2, Jonathans \$2, Winesaps \$2.25, Winter Bananas \$2.75 and Delicious \$3. Early quotations from Colorado shipping sections have averaged \$2 on Jonathans, \$2.15 on Winesaps, and \$1.40 on Ben Davis. The advance over last season's corresponding prices is 50c-\$1 per box, according to variety and the size of the crop.

"Bushel baskets of New York and Michigan Wealthys were ranging \$1.65-\$1.85 on an f.o.b. usual terms (Concluded on page 13)



Kelly sales increase 57% in six months

FOR the first six months of this year the sales of Kelly-Springfield tires were 57% ahead of the figures for the corresponding months of last year.

There can be only one explanation for this astonishing showing: That explanation lies in the quality and the value that are being built into the Kelly product.

Car-owners have grown tire-wise. No tire company could show such a tremendous increase in business unless it had been able to demonstrate to tire buyers that it had something out of the ordinary to offer.

Kellys cost no more than a great many other makes of tires.

*"Kelly dealers everywhere—
there must be one in your town"*

KELLY-SPRINGFIELD TIRE CO.
GENERAL MOTORS BLDG. NEW YORK, N. Y.

KELLY SPRINGFIELD TIRES

Kentucky Society Holds Successful Meeting By Allan Reid

THE SUMMER MEETING of the Kentucky Horticultural Society consisted of a one-day tour on September 5 in the vicinity of Henderson. The first orchard visited was that of Dr. Zeaman. Because of the poor bloom which appeared in this orchard, the prepink and pink sprays were omitted. As a result, bad infection of blotch and scab occurred.

The next visit was made to the orchard of Ben E. Niles. Here the growers saw a fine planting of three-year-old peach trees which give great promise of a fine crop next year.

Barrett and Street's apple orchard was next visited. It is carrying as heavy a crop of fine clean apples as the most extreme optimist could wish. This orchard produced a very light crop last year when prices were low, and now when many other orchards are taking a rest, it is producing a heavy crop that will sell for good prices.

Some interesting experiments are being conducted in this orchard for the control of codling moth with burlap and roofing paper bands. The moths hibernate or pupate under the bands and can be removed and killed there by removing the bands occasionally and replacing them. The burlap is

giving the best results. While such methods are a help, their inability to control the situation was shown by the results obtained in the check plots which were banded but received no sprays. These carried a very high percentage of wormy fruit. Apparently, we shall have to depend chiefly on sprays for the control of codling moth until a better method is found.

In the Reid orchard east of Owensboro, absolute control of codling moth was secured last year in an enormous crop of Winesaps by the proper timing of sprays. While the fruit on these trees showed practically no codling moth whatever, an unsprayed tree standing apart from the orchard carried a very heavy infestation.

W. S. Perrine, a large and successful peach grower residing at Centralia, Ill., gave a most interesting talk to members on growing peaches. A vigorous discussion followed his talk, as everyone felt he was listening to a man who spoke with authority. While the advice of professors is appreciated, growers prefer, occasionally at least, to get some of their advice from a man like Mr. Perrine, who has made a great success of peach growing. This year, while his crop was cut in two by adverse spring weather, he still shipped 47 carloads.

Ben E. Niles, the philanthropic secretary of our fruit growers' association, expressed the hope in a recent

(Concluded on page 18)

The Editor's Mail Box

Tree Surgery Methods

Editor, AMERICAN FRUIT GROWER MAGAZINE: I have some Delicious trees that were in very fine condition until last March, when they were hit hard by a tornado and about 150 trees were badly damaged by flying debris. In most instances they have healed up nicely, but there remains some scars that are too deep to heal over. I wish to practice some tree surgery on some of the worst trees. Will you please give me what directions you can regarding this?—C. V. R., Arkansas.

ANSWER: If the scars on your Delicious trees are not too large and deep, I would suggest that you trim them out carefully, sterilize them and paint with white lead paint, taking care to get none of the paint on the bark or cambium. A wound that is not too large will heal over rather quickly if treated in this way.

You will find it advisable to fill some of the large, deep cavities with concrete. This can be done successfully at this time of the year, although I advise that you do it as soon as possible.

The first thing to do is to trim out the wounds carefully. All rotted tissue should be entirely cut out. Cavities should be cut in such a manner that concrete will hold in them. Large cavities should be braced with bolts to prevent spreading after the concrete is placed. Nails driven at intervals into the wood on the inside of a wound will help to hold the concrete in place. Crotches and cavities that are split should be securely bolted.

The next step consists in sterilizing the cut surfaces. After removing all diseased tissue, put creosote on the cut surfaces, but do not get any over the cambium or bark. Follow with a coating of tar or asphalt.

The concrete should be made of cement one part and clean sand two and one-half parts. A fairly wet mixture will give the best results. Short wire rods are useful for reinforcing in large cavities. Wire screen or burlap tied or fastened across the front of a cavity will help to hold the concrete in place until hardening results. Remove this when the concrete is well set. Do not cover the cambium with cement, as growth at this point will spread the cavity and allow moisture to enter and loosen or crack the filling. After the concrete has thoroughly hardened, give it a coating of asphalt or tar to make it waterproof.

Regulations for Selling Cider and Vinegar

Editor, AMERICAN FRUIT GROWER MAGAZINE: I have a great many cull apples and I want to know if I can make these into cider and sell it under the prohibition act, either as cider or vinegar. Kansas also had a prohibition act passed about a year ago.

You state in your September issue that one-tenth of one per cent of benzoate of soda by weight should be put into the cider to preserve it. What do you mean? Please tell me how much by weight I must put into a 50-gallon barrel of cider to preserve it.—F. P. M., Kansas.

ANSWER: You can make cider from cull apples but it is advisable to wash them carefully and trim out all decayed and wormy portions before pressing out the juice.

For home use, you may make cider and vinegar without securing a permit. If you want to make cider or vinegar for sale, you should secure Form 1404 from the Bureau of Internal Revenue, Washington, D. C., and make application on same. After a permit is granted you, you can sell cider containing less than one-half of one per cent of alcohol and vinegar containing four per cent or more of acetic acid. These are the regulations of the Federal Prohibition Act and the pure food laws. I do not know what the Kansas law requires and would suggest that you consult a Kansas official regarding the same.

Under the United States food laws, benzoate of soda may be used in foods provided its presence and amount are indicated on the label. The Chicago office of the United States Food and Drugs Department

advises us there is no limit to the amount which may be used. Some state laws, however, may limit the amount. It is advisable to use no more than necessary. One-tenth of one per cent is sufficient to preserve cider, and this amount is quite commonly used by those who preserve cider by this method. Cider is about the same in weight as water, namely, about eight pounds to the gallon. At that rate, a 50-gallon barrel would weigh 400 pounds or 6400 ounces. To put one-tenth of one per cent of benzoate of soda in 50 gallons, therefore, you would need to use 6.4 ounces. It is said that four ounces is the minimum amount which will preserve 50 gallons under favorable conditions provided the benzoate is added immediately after pressing. Probably five to six ounces per 50 gallons would be the best amount to use.

Treatment for Pear Blight

Editor, AMERICAN FRUIT GROWER MAGAZINE: My orchard has had a very bad attack of pear blight this summer, and I would appreciate information as to how and when I can best treat it.—J. E. R., Ohio.

ANSWER: Fire blight can best be controlled by pruning out the dead wood in the fall, according to the New Jersey State College of Agriculture. The bacteria which cause fire blight pass the winter on the diseased parts of the tree and are carried to the blossoms in the spring by bees and other insects. Spraying is of no benefit. The only practicable method of control is to prevent spread of the bacteria by cutting out and burning diseased parts.

Pruning for this disease is best done before the trees have shed their green leaves. The brown leaves and dead twigs then stand out prominently. Cut out all twigs and branches below the dead areas. Trim out the cankers on the large limbs with a sharp knife, removing all the dead bark and about one-half inch of live bark on all sides of the dead area. The cuts should be pointed at both ends so that they will heal readily the next season.

After the wounds are trimmed out, they should be sterilized with mercuric cyanide one part to 500 parts of water and bichloride of mercury one part to 500 parts of water, mixed together. Store the material in a glass container and apply with a swab or brush. Disinfect the tools occasionally to prevent spreading the disease. Keep the sterilizing solution out of reach of children or livestock.

Storing Grapes

Editor, AMERICAN FRUIT GROWER MAGAZINE: I should like to keep some grapes at least for a short time after the normal ripening period. Can you give me any information regarding this matter?—W. J. S., Texas.

ANSWER: I am glad to give you what information we have available at this time. We have stored at the station a number of varieties for a few weeks and find the following to be true: No grapes will keep well unless they have been allowed to ripen on the vine, picked very carefully and stored in small packages. No bruising is permissible; neither should grapes which are diseased be stored. The temperature varies from 38 to 42 degrees; extremes of temperature are not permissible. We find the red varieties keep better than either the blacks or whites, although some of the black varieties are superior in most respects. Varieties with high percentage of Vinifera blood in their makeup keep better than those of the Labrusca type. For example: Agawam keeps better than Concord. Some of the best keeping varieties follow: Agawam, Brighton, Catawba, Delaware, Herbert, Lindley and Vergennes.

The grapes should be carefully watched to note any evidence of shelling, or shrivelling or loss of quality. We were able to keep most of these varieties through the Christmas holidays. It should be understood that the

grapes will not keep very long after removal from storage. Last year, when there was a surplus of grapes on the market in southern Illinois, one man who stored his crop for a few weeks did so with considerable profit.
—A. S. Colby, Illinois Experiment Station.

Information on Concrete Construction

Editor, AMERICAN FRUIT GROWER MAGAZINE: I want to do some concrete work this fall. Please give me some trustworthy information regarding mixtures to use, etc., or tell me where I can get such information.—W. R. C., Indiana.

ANSWER: The Portland Cement Association, 33 West Grand avenue, Chicago, has some good bulletins on farm concrete construction which you can obtain on request. You can also get a good bulletin from the United States Department of Agriculture, Washington, D. C.

Quebec Growers Make Tour to Vermont and New York

By A. B. Burrell

New York State College of Agriculture

ONE OF the memorable fruit growers' affairs of the season was the visit of the Pomological and Fruit Growing Society of Quebec to the Champlain Valley of New York and Vermont on August 9 to 11, inclusive. Sixty-five members of this organization, including representatives of several of the colleges of the province, motored into the states for the purpose of inspecting outstanding fruit farms.

Visit Famous Orchards in New York

The first day was spent around Peru, N. Y., which is the center of the production of McIntosh and Fameuse apples in New York state. Visits were made at the orchards of the Champlain Valley Orchard Company, John Sullivan, and the Northern Orchard Company. It was at the latter place, all present agreed, that orchard management had reached the greatest degree of efficiency. The main block, consisting of 90 acres of 20-year-old McIntosh trees, except for a few pollinizers, was heavily laden with large, clean, high-colored fruit. On the same farm was seen a thrifty old orchard and a 40-acre block of vigorous non-bearing trees, the varieties McIntosh and Fameuse predominating. Barnyard manure and nitrate of soda, used in liberal quantities, are believed by Amos Avery, the manager of this orchard, to contribute largely to its habit of heavy production. Chief reliance for the control of insects and diseases is placed on liquid spraying, but this is frequently supplemented by dusting when speed is imperative.

Joint Banquet a Success

The culmination of the day's program was a joint banquet of the Canadian orchardists and the Champlain Valley Fruit Growers' Association at the Tavern in Peru. Among the speakers were Prof. G. W. Peck of the Department of Pomology at Cornell University and Datus Clark, president of the New York State Council of Agriculture and Markets. Prof. C. E. Petch of the Dominion Entomological Laboratory at Hemmingford, Quebec, was toastmaster.

Leaving Peru early on the morning of August 10, the procession of Quebec orchardists, augmented by several cars belonging to local fruitmen, proceeded toward the orchard of Assemblyman Fred Porter at Crown Point, N. Y. Though of but moderate size—65 acres—this orchard is well known for its consistently heavy crops of fancy McIntosh and Spy apples. The Spys are especially well loaded this year.

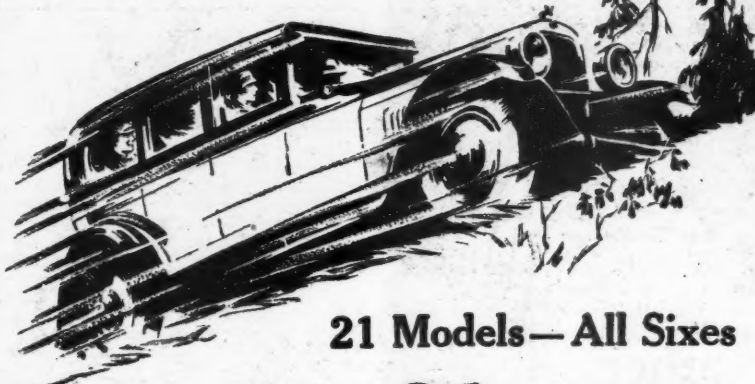
Ferry Across Lake Champlain to Vermont

Following lunch at Crown Point, the crowd ferried across Lake Champlain into Vermont, visiting on that same day the orchards of C. L. Witherill and Fred Stalker of Shoreham and that

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of J. McL. Stevens, president of the Vermont Horticultural Society, at Orwell. That evening the group was addressed at the close of dinner by Prof. M. B. Cummings, head of the Department of Horticulture at the University of Vermont.

On the eleventh, the program was completed by stops at the 17,000-tree Buxton orchard at Middletown Springs, and the 12,000-tree MacRae orchard at Castleton. All of the above-mentioned Vermont orchards were well loaded, but hail had done some damage in a few cases. A stop at the Loomis orchard at West Addison was on the program but unfortunately had to be omitted for lack of time.

After dinner at the Middlebury Inn, the society adjourned and each member made his way home by the most direct route. By reason of its international character the gathering was

considered somewhat unique.

The officers of the Pomological and Fruit Growing Society of Quebec are: president, Morley E. Honey of Abbotsford; vice-president, Peter Reid of Chateaugay; and secretary-treasurer, W. J. Tawse of MacDonald College. The tour was arranged by the officers of the society, assisted by the various county agricultural agents, and by Arthur B. Burrell of the Department of Plant Pathology at the New York State College of Agriculture.

No Other Can Equal It

Editor, AMERICAN FRUIT GROWER MAGAZINE: I want to say that you are producing in the AMERICAN FRUIT GROWER MAGAZINE the very best information there is to be had. No other magazine can equal it.—George Lee, New Zealand.

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National Fruit Show Planned

FRUIT from all parts of the United States will be exhibited in Convention Hall at Kansas City, Mo., November 28, 29 and 30 at the Central States Horticultural Exposition and National Fruit Show, according to Prof. Albert Dickens, president of the exposition. One of the leading features will be state exhibits, featuring the apple industry of the various states.

Twenty-five hundred dollars in cash prizes are offered for exhibits of apples, potatoes and honey. There will be classes for commercial packed boxes, baskets and barrels, as well as the plate and tray exhibits of fancy fruit. Honey will also be shown in large and small quantities as it is sold to the retail and wholesale trade.

One of the outstanding features will be commercial exhibits of all machinery and materials used in the proper care of the orchard. Advance contracts for exhibit space have already been made by several nationally known firms.

The three-day exposition will include daily programs on which will appear the highest trained specialists in the fruit, potato and honey industries in the United States. A greater exposition than the successful show held in 1925 is predicted by George W.

Catts, agricultural commissioner for the Kansas City Chamber of Commerce, who is acting as manager of the exposition. The premium list will follow the same classification used in 1925. Anyone desiring a copy should write Mr. Catts.

How to Register a Trade-Mark

(Continued from page 8)

nations and Indian tribes, that portion of the OATH in parentheses must be omitted.

A drawing showing the trade-mark must be prepared in black India ink on two-ply or three-ply Bristol board drawing paper, size eight by 13 with a margin line on the sides and ends three-fourths of an inch from the edge. A sheet of this drawing paper of correct dimensions having the margin line printed can be purchased for five or 10 cents from almost any store which handles drawing supplies. The drawing must be signed in black India ink by the applicant under the word "Proprietor."

Then the applicant simply mails the drawing, the PETITION AND STATEMENT, the OATH, five specimens of the labels showing the trade-mark as it actually is used, and \$10 (in a mailing tube) addressed to the Commissioner of Patents, Washington, D. C. No letter is required.

Markets and Marketing



CONSTRUCTION of cold storage for fruit and vegetables is regarded as good crop insurance in the Yakima Valley, Washington, where it has reached a stage unsurpassed by any other district in the Northwest. By its use, growers and co-operative selling agencies are able to retain control of their crops until ready to sell, and both growers and dealers are able to put fruit on the market in first-class condition and to save money in times of car shortage, for local storage rates usually are much lower than foreign.

Figures prepared by J. L. Lytel, superintendent of the Yakima Irrigation Project, show that there are in the valley cold storage plants with a total capacity of 7280 carloads, built at a cost of \$491 to \$577 per carload capacity, and representing an investment of more than \$3,800,000. Additional construction planned for this season will cost nearly \$400,000, and one of the foremost co-operative associations will erect within two years a modern cold storage and office building for its Yakima headquarters. Thirty-three plants with capacities varying from 500 to 700 carloads each are controlled 71 per cent by private dealers and 29 per cent by co-operatives, and are distributed as follows, according to Lytel:

District.	Capacity (in carloads of 756 boxes of apples)
Zillah	550
Yakima	4435
Wiley City	275
Tieton	255
Selah	255
Reservation	390
Kannewick	245
Grandview	375
Donald-Buena	400
Naches	275
Kittitas	5
Total	7280

—L. B. Angell, Oregon.

THE GROWING importance of dried fruits in the world's trade is strikingly revealed in a report recently issued by the Department of Commerce. The total volume of dried fruit entering international trade at present is approximately 700,000 tons annually, of which raisins and dates make up, respectively, 35 and 30 per cent.

With the exception of figs and dates, the United States is by far the largest producer of dried fruits. We produce 50 per cent of the world's raisins, 70 per cent of the prunes, and more than 90 per cent of the dried apricots, peaches and apples. Production of figs and dates in this country is negligible, and we are each year importing larger quantities of these two items. More than 90 per cent of the entire output of dried fruits in this country comes from California.

During the five-year period immediately preceding the war, exports of dried fruits from the United States averaged 200,000,000 pounds, while for the similar period ended in 1926, this average had risen to 300,000,000. The value of our dried fruit exports last year reached \$27,000,000. Imports of dried fruits into the United States, chiefly figs, dates and currants, have more than doubled since pre-war years. Last year these imports had a value of \$7,500,000.

Raisin production in the United States has increased threefold since 1913, rising from 71,000 to 215,000 tons. Exports of this item in 1926 amounted to 70,000 tons, which was eight times the average pre-war figure. The United Kingdom has replaced Canada as our largest foreign customer, taking 31 per cent of our total shipments last year. At the

present time, about half of our raisin shipments go to European countries, although before the war the proportion was only about 12 per cent.

As with raisins, prune production in this country has increased enormously in recent years, with exports rising in the same proportion. In 1913 we produced 62,000 tons of prunes, while in 1925 the output had increased to 160,000 tons. Approximately one-half of the prune production in the United States is exported. Germany is our largest foreign market, with the United Kingdom second. France also imports a considerable quantity of American prunes, although she is herself a large producer of this fruit.

According to the report, the United States is the only country which produces enough dried deciduous fruits, such as apples, apricots and peaches, to export. A large proportion of the production of all these items is shipped to foreign countries.

Imports of dates and figs into the United States, the report shows, have shown consistent gains. During the period 1921-25, our annual imports of figs amounted to more than 18,000 tons, which was double the import figure for the five-year period immediately preceding the war. During the same time, date imports into this country advanced from 15,000 tons to 39,000 tons. About 75 per cent of our date imports originate in Arabia, while Smyrna accounts for half of our foreign figs.

IN LAST MONTH'S issue we described the new marketing plan being developed in the Pacific Northwest and stated that it was uncertain whether the plan would be put into operation this fall. Since that time we have learned that shippers in some districts will operate this year under the plan. Obviously, all growers using these shippers will receive the information distributed. Certain districts were unable to organize their growers, and in other districts the shippers, though organized, refused to furnish information to the general offices at Spokane for general circulation. The plan will not be applied to such sections this year.

It is our understanding that growers in some sections are favorable toward the plan notwithstanding the fact that shippers through which they are operating have failed to adopt it. It is unfortunate that the northwestern growers are not all well organized by communities and districts. If they were, they could no doubt influence their shippers to participate in carrying out the plan.

THE PUSH-CART merchants of New York now aggregate 7860 in number and do an annual business of \$35,000,000 and supply about 1,500,000 persons with fruits, nuts, vegetables and cheese. During the summer, these cobblestone merchants are an important factor in the sale of small sized oranges, apples and other fruits of ordinary grade.

BEFORE the Wisconsin State Department of Markets was formed, practically all of the strawberries of the state were marketed by individual growers. At present, 90 per cent of the tonnage is marketed through growers' organizations. Formerly, much of the fruit shipped to terminal markets was of low quality. Since the co-operatives were organized, the grade of fruit has steadily been im-

proved until now the growers are placing fruit on the large markets that cannot be excelled by that of any state in the country. Dealers in Duluth, Minn., have in particular expressed their satisfaction regarding strawberries shipped to that market from various parts of Wisconsin. The Department of Markets, which has been instrumental in bringing about improved methods of marketing, is headed by W. P. Jones.

THE HORTICULTURAL Union of Yakima, Wash., is building a \$5000 apartment building at Tieton for its laborers. It will be a two-story structure 30 by 130 feet in size and will have 44 sleeping rooms.

THE CALIFORNIA Prune and Apricot Growers' Association recently obtained judgment against William A. Higgins and Company of New York in the amount of \$167,572.38 on account of failure to accept prunes of the 1920 crop as contracted for. The money has been refunded to members of the association on their 1920 pool.

IMPORTS of dried fruit into Brazil amounted in 1925 to about 2,800,000 pounds valued at \$430,000, while imports of fresh fruits totaled 18,000,000 pounds and were valued at \$2,180,000, according to Trade Commissioner M. A. Cremer, located at Rio de Janeiro.

About 80 per cent of the dried fruit imports consist of prunes, the remainder being apricots and raisins. Most of the dried fruit comes from Europe. California raisins in packages are becoming better known. Because of the heavy duties imposed on imported dried fruit, most of this product is of the cheaper grade. Since only the wealthier classes buy imported dried fruit, and since the duty is levied according to weight, it would seem that better grades than those now coming in would be in demand.

THERE are now about 37,337 Sunkist extractors in operation throughout the country. It is estimated that they will consume about 2,000,000 boxes or 5000 cars of the season's crop.

A LARGE model packing plant may be constructed at Martinsburg, W. Va., by the Baltimore and Ohio Railroad, according to a statement recently made by Daniel Willard, president of the B. & O. It is expected that a co-operative group of growers will be formed which will lease the packing house from the railroad.

Monthly Market Review

(Continued from page 9)

basis. Exceptionally high prices were reported for early shipments of Virginia apples, but later the f.o.b. market settled around a \$6 level for barrels and \$2.25-\$2.40 for boxes. With a light crop, prospects are good for very satisfactory returns in Virginia. Another indication of the shipping-point level of eastern fruit is seen in recent auction quotations from Liverpool, England. Early arrivals of Wealthys and Yorks were reported to be selling in Liverpool at \$8-\$10.50 per barrel, while other varieties ranged \$6-\$8. Boxes of Gravensteins showed a wide range of \$2.50-\$4.70 on the auction, and another important variety averaged well above \$3. The export movement was well begun, with cargoes increasing each week.

"Total shipments of eastern apples had nearly caught up with the early 1926 record, but movement of western fruits has been only half as heavy as last year. Some of the difference is accounted for by the early opening of the 1926 season in the West. New York's output to date has been much lighter than a year ago, and quality of New York apples this season is expected to be rather poor, taking the crop as a whole. Much of the stock is showing insect injury. There are some orchards with fruit of very good quality, but the percentage of lower grades this season will be high, com-

pared with recent years. In spite of such local conditions, however, eastern apples in bushel baskets have been jobbing in terminal markets at prices nearly twice those of last summer, and barrels have been jobbing at \$5-\$8.

"Successful storage of some of the long-keeping varieties of American apples has greatly prolonged the season in recent years. An unusual report came from Glasgow, Scotland, the last week of July, indicating that some Virginia Albemarle Pippins, harvested the previous autumn and kept in cold storage, were sold about July 30 at \$3.50-\$4.75 per bushel basket. This is equivalent to about \$10-\$14 per barrel, compared with a February price on the Liverpool auction of \$7.30-\$8.

"Apple growers, shippers and dealers can obtain from the Bureau of Agricultural Economics, at Washington, a complete mimeographed report on 'The Apple Situation in 1927.' Crop and market prospects are analyzed in this report.

Peaches and Pears

A backward glance at the 1927

peach market shows high prices during the early part of the season but less satisfactory returns later; peak shipments during early July and no September (smaller) peak because of the lighter eastern crop; a season total of about 40,000 cars, compared with 58,500 last year. California growers selling their crop to canneries are rather disappointed over the season's results, but east of the Rockies a little money was made this year.

"More and more attention is being given to the scientific aspects of peach growing, and some of the marketing problems are gradually being solved. What varieties best meet the market demand at a particular time, was the question uppermost in the mind of a Virginia orchardist, who recently wrote for information as to the exact period in late summer when prices usually are at their peak. Eastern Elbertas during early September were jobbing at \$1-\$3 per bushel, while best Colorado stock brought \$2.50-\$2.75 in consuming centers and \$1.25 f.o.b. western slope points. Shipping points in western Michigan quoted two-inch

fruit at \$1.75. Boxes from California were selling in a few markets at 75c-\$1 each.

"Pears proved to be a fairly profitable crop. The lighter and later movement this season favored higher prices. Shipments have been running fully one-third below the 1926 total to date. Though demand temporarily was limited, bushel baskets of Michigan Bartlettts were bringing \$2 or more in the southwestern part of the state. Arrivals from New York state were jobbing throughout the East at \$1.25-\$2, according to variety and condition; Michigan Bartlettts ruled \$2-\$2.75, and late sales of Colorado stock were reported at \$3. Boxes of pears from western producing sections were averaging close to \$3 in terminal markets."

An Easy Decision

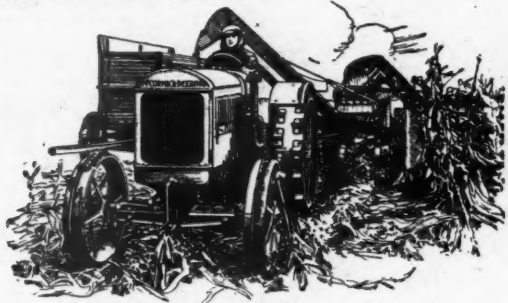
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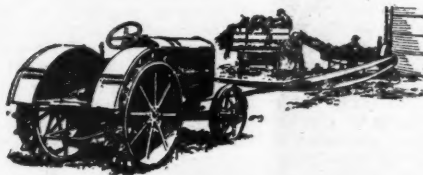
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The Orchard Home Department

By Mary Lee Adams

Charming Small Homes

IF YOU are familiar with any old-fashioned houses still furnished in the style of two generations ago, you must have been struck by the decided change in taste since that period.

In what we know as the "Victorian Age," bright, cheery rooms were regarded as a pronounced social error. Window shades were decorously drawn down in the parlor or "drawing room." Heavy furnishings and draperies added to the gloom.

This unfortunate period gets merciless fun poked at it on all sides. It seems odd that it should have succeeded an era when people of means often built very lovely homes in the Georgian style, with decorations and furniture by such enduring artists as Adam, Sheraton, Duncan-Phife and Chippendale. How we do admire them today!

The Victorian Age ushered in an oppressive heaviness and dullness. Some critics suggest that this was a natural consequence of the unimaginative taste induced by the highly moral but somewhat stodgy regime of that excellent Queen Victoria of Britain. America at that time was less independent in taste and modeled itself more upon England, the mother country.

From Bad to Worse

Whatever the cause, an appalling abundance of dark, unattractive homes with ungracious furniture and light-excluding draperies invaded our land. Even the wealthy turned from the charming and artistic outlines of the fine old residences, dragged the splendid old mahogany up into the garret, and entered upon an orgy of massive golden oak.

Monstrous mantels succeeded the exquisite marble or delicately carved wood that embellished the formerly stately rooms. Doletful crocheted tidies and antimacassars sprouted on the backs of chairs and sofas. Homes generally were disfigured, for those of meager means went as far as they were able with cheap imitations of what was ugly enough in the original.

Outrageous taste ran riot until it perished of its very excesses. When meaningless turrets sprang up on roofs like so many pepper pots, when jig-saw valances of wooden lace ran round the porches and a vulgar air of ginger-bread over-decoration impudently flouted the feelings of the more conservative, it was felt that the limit had been reached, if not already passed.

We Come into Our Own

Gradually a simpler and far better architectural style began to creep in. The stately old homes, to be sure, were seldom reproduced, but what was lost by the classes was more than offset by the gain to the masses. This is the day of small, charming houses.

Though the wealthy can, and do, spend large fortunes on magnificent residences that rarely offend and often delight the artistic eye, yet no one who is able to have any kind of home need despair of making it thoroughly attractive. The very words "cottage" and "bungalow" suggest picturesque, cosy and homey places.

Who is there nowadays that does not love light, cheerful rooms, particularly in the country house? We revel in many windows and let in the hygienic sunshine. That sunshine no longer falls upon dingy, solemn furnishings, but lights up colors as gay as garden borders.

Opportunities for Color

There's no end to the fascinating color schemes that may be successfully used if tempered with discretion which avoids the use of garish or conflicting hues. Our homes may be all the prettier for the present vogue of gaily patterned chintzes, cretonnes and brocades.

The use of colored table linen offers

exciting opportunities for table decoration. The dishes, whether of china or the newer glass, accord or contrast deliciously with the daffodil or rose colored cloth and napkins. On a table of handsome, dark polished wood, runners, mats and dollies may be preferred to the larger pieces.

The Looms Work for You

What scope the lover of beauty and brightness finds in the endless variety of upholstery materials. The price of some of these runs high, but there's a wide range of choice among those of moderate cost.

Flowered chintzes seem to express the essence of bedroom daintiness. Cretonnes and brocades adorn more formal apartments. It would be idle to try to enumerate the suitable and lovely offerings of the stores.

In the semi-outdoors of porches, woven raffia has several decorative uses. The deft-fingered woman can weave for herself mats and covers of raffia in small contrasting squares or stripes. It can be made very effective.

Wielding the Paint Brush

Painted furniture is peculiarly appropriate for porches and bedrooms. Even the novice may succeed when not attempting too much. Simple color, or at most a two-toned effect, is advisable for one's first efforts in this line.

When sufficient skill has been gained, there is no end to the delightful pieces one can add even to the best-dressed rooms in the house. Fine results have been obtained by purchasing suitable, unpainted furniture of good line, and embellishing the surface with the design that appeals to the painter.

Noting the pleasure that is added, even to the kitchen, by colored curtains and enameled ware, it would appear that it is difficult for the rural home to look too bright and gay, especially in summer when open doors and windows spill sunshine into airy rooms. But let the enterprising home decorator keep in mind that there's always a limit which it is fatal to pass.

Show Some Moderation

Where the hangings are gaily patterned, the best effect is had by keeping the walls subdued in tone, indefinite in design or frankly plain. Where dainty voile or muslin curtains of white or some soft tint flutter frillily at the windows, the walls may assume some more pronounced design of happily blending hues.

It is well to remember that a wall covering of large definite design, is one of the very difficult things to handle successfully in a small room. If chairs and other furniture are brightly painted, floor cover and rugs should be less conspicuous. This will be quiet and restful.

Such reticence will set off the more striking furnishings. It serves as a well-balanced contrast so that the eye may not be wearied and confused and the individual ornamental effects may not lack an undisturbing background.

Rural Women's Clubs

IN PRE-PROHIBITION days, an elderly lady of my acquaintance, whose daughter had recently married in a distant city a wealthy man of exceedingly vague occupation, was asked by a friend, "In what business is your son-in-law?" Thus confronted by an awkward inquiry, she gamely responded, "Oh! Mr. Fielding is a club-man."

This created not a little mirth in her rural circle. It was at once concluded that the gentleman in question loafed a good deal and drank not a little. That's what "club-man" generally indicated. The term, once frequent, has almost gone out of use.

The term club-woman, however, is heard more often. It is far from suggesting a loafer. Women's clubs accomplish much that is useful in

municipal affairs. In what pertains to church, home and school, they are active workers. Even in national politics the large women's clubs play a not insignificant part.

None so busy as the efficient, well-informed club woman of city or country. If I were asked to which of these women the club is more important, I would be inclined to say—to the rural woman. Such associations of women in small towns and country, provide not only very useful activities, but also opportunities for social contact and entertainment.

A significant little incident occurred a week or more ago in a village in an orchard section. One of the more prominent men of the place heard from an outsider a criticism of the condition of the streets. On being asked if he did not think something should be done about it for the credit of the town, this old resident replied, "You had best take that up with the woman's club. They are the liveliest organization we have."

It may have been merely a coincidence that within a week the desirable repairs were made. What impressed me was the fact that when there was something practical to be done in the way of civic improvement, the first thought was of the women's club.

The rural community of women who have not one or more clubs is missing a real opportunity for service and pleasure. Organize as soon as possible, and then keep in mind that organization without co-operation never gets far. Work together with a will, and the whole tone of the neighborhood will improve.

American Birth Rate High

THOSE who seem to be obsessed by the fear of race suicide, have almost persuaded us that the United States will assuredly in the near future fall into the hands of unworthy immigrants because of the lamentably low birth rate among American mothers.

We may now take comfort in the assurance of so high an authority as Prof. W. S. Thompson, director of the Scripps Foundation for Research on Population Problems, that the average birth rate among American Anglo-Saxons is higher than even among Poles, Germans or Italians.

From this, he argues the certainty of Anglo-Saxon dominance for 100 years to come at the very least. The country has a steadily larger birth rate than the cities, but the birth rate throughout the world is, the professor asserts, declining.

Use of Ears and Elbows

WE ARE early taught to take the greatest care of our eyes, the precious organ of sight. Ears have been more or less allowed, as it were, to shift for themselves.

But of late, the ear has gained a new prominence in our consideration. Even seasickness has been "blamed on" the formerly innocent ear, and somewhat dizzy looking voyagers upon the broad breast of the ocean may be seen zigzagging up and down the decks with shreds of cotton peeping coyly from the oral office.

We learn with acute apprehension that "if our ears ceased to function properly, we probably shouldn't know whether we were standing on our heads or our heels." "We should have no sense of direction, motion or speed."

In the ear, small canals filled with fluid that runs up and down, are responsible for our sense of motion. We begin to appreciate the wisdom of the warning, "Never try to clean the ear with anything but the elbow." In other words, never poke into your own ears. When in trouble, seek expert advice.

Transplanting Fruit Trees

(Continued from page 5)

they should be set no deeper than they stood in the nursery. If the soil is heavy, spring-set trees should stand a little shallower than they stood in the nursery. In the case of spring-set trees, new root growth starts first on the roots nearest the surface of the soil, which is better aired and which warms up first. In order to stand straight and firm, a newly set tree depends largely upon speedy, new root growth to anchor it in the soil.

Proper Orientation of the Trees

In the Central West, fruit trees tend to lean more or less to the northeast. This is particularly marked in prairie districts. It is also more marked in some varieties of trees than in others. This tendency is largely established while the tree is young, or during the first few years after it is planted in the orchard.

The tendency of fruit trees to lean toward the northeast is due apparently to two causes: the fact that the prevailing winds are from the southwest during the growing season, and the fact that the tissues of the southwest side of the tree tend to "scald" more or less, due to extreme fluctuations of temperature on the sunny side of the tree, especially in late winter and early spring.

This injury to the tissues of the sunny side on the tree trunk in winter, combined with the prevailing southwest winds, accounts for the fact that young trees make stronger growth on the northeast side and tend to lean toward the northeast during the growing season.

The tendency of young trees to lean toward the northeast may be largely avoided by proper orientation of the tree when it is set in the orchard. No matter how symmetrical the young tree may appear to be, it will be found to possess a "heavy" side. One side has a heavier growth.

In planting the tree, the heavier side should be set toward the southwest in this interior section. To orient the tree, it should be caught so it will balance, and come to rest across the palm of the hand. Its heavy side will turn toward the palm. That side should face the southwest in setting.

Time to Prune Transplanted Trees

Early spring has been most generally recommended for pruning. It is the usual custom to prune back the branches of young trees when they are transplanted. Some writers have recommended delaying pruning back fall transplanted trees until spring. The precaution often urged against cutting back the branches in the fall is that the tree loses too much moisture through the cut surfaces of the twigs. Fear has been expressed that the cut-back branches will dry out sufficiently to kill back badly during winter.

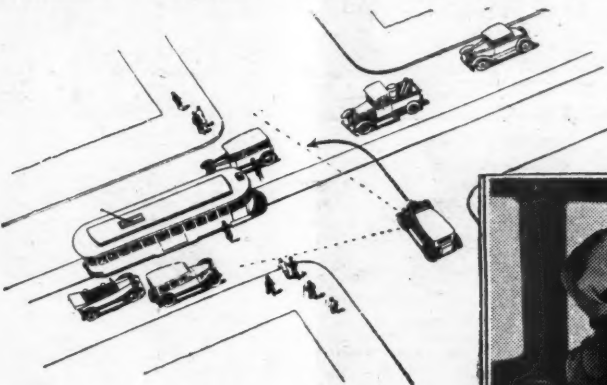
In order to answer this question for Missouri conditions, general observations have been made on young trees pruned at different seasons at the Missouri Experiment Station in the last 20 years. The results uniformly indicate that better growth results if the branches are cut back in the fall. This holds true for young trees generally, whether they are transplanted in the fall or spring or whether they are not transplanted.

Reasons for Pruning Newly Set Trees

The newly set tree is pruned primarily for the purpose of reducing the evaporating surface of the tree until new root growth becomes established to supply adequate water. Incidentally, it may serve in starting a proper framework or branching system. The degree of pruning which is desirable differs with the species. Trees like the peach, which start new branches readily from the central trunk but the twigs of which tend to dry out badly, should be cut back most severely. Trees like the sour cherry, which does not start growth readily from the dormant buds on the older parts but which makes its new growth from

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the active buds near the terminals of its branches, should be pruned least.

Amount of Pruning for Different Species

As a result of careful study, the different species are arranged in the following order, from those which should be pruned most to those which should be pruned least at the time of transplanting: peach, nectarine, Japanese plum, apricot, pear, apple, European plum, American plum, and sour cherry. **Peach, Nectarine and Japanese Plum.**—The peach should be pruned to a single whip by removing the side branches and shortening the main stem to two or three feet in height. The nectarine and Japanese plum should be pruned in a similar way, except that the latter may retain stubs, a few inches long, of three to five main limbs if the branches are large and well established. These species start new growth most readily from the main trunk or the base of the limbs.

Pear and Apple.—The pear and apple should be cut back to a medium

degree. The side branches should be cut back so as to reduce them one-half to three-fourths. The central stem should be shortened but left from 10 to 16 inches higher than any of the surrounding branches. At the end of the first season's growth the permanent framework may be established by removing all but from three to five well distributed, outward spreading limbs to secure a modified leader tree. If the tree is large so permanent limbs may be chosen at the time of transplanting, this permanent framework may be established then. If the tree is a one-year-old whip having no branches, it should be shortened to a height of about two and one-half or three feet, with the object of securing a good branching system below the point of cutting back.

American Plum.—The American plum should be cut back somewhat less severely than the apple. If the tree is well branched, three or four main limbs may be left intact to form a permanent head and the remaining stem and branches removed. The side

branches remaining may be shortened one-third to one-half.

Sour Cherry.—The sour cherry should not have its permanent branches cut back, as it starts new growth most readily from the larger, active buds at the terminals. Three to five main limbs should be chosen for the permanent framework and the remaining limbs and central stem should be removed. The limbs which remain should have their terminals left intact.

The concluding installment of this article will appear in the November issue.

A Correction

J. R. BECK, author of the article on "The New Prune Drier of the Pacific Coast," which appeared in our September issue, wishes to make correction in the figures given by him in the next to the last paragraph of the article. The figure 3,000,000 should have been 300,000,000 and the figure 5,500,000 should have been 550,000,000.

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Vermont Pomologists Meet at Vergennes

(Continued from page 8)

health association and emphasized the necessity of advertising any product.

Congressman Brigham Speaks

Congressman E. S. Brigham congratulated the apple growers because of their enterprise as experts in producing great results in apple growing. From the consumer's viewpoint, he spoke of the need of a good apple at a fair price and its place in the market.

If the apple growers could sell their fruit as well as do dealers of citrus fruits, consumers could buy at fair prices, and crops such as last year's could be consumed, according to Congressman Brigham. "In every product which requires skill in growing, man must be a specialist today," said the speaker, and he added that only a skilled man can grow Vermont apples. He further stated that the competition from the old uncared-for orchards has been removed.

In conclusion, the congressman said that agriculture in Vermont is on a safe basis, as the shift in this state in the past few years has been to industries which require skill, and in skill there is less competition.

Prof. M. B. Cummings of the University of Vermont, secretary of the society, made a few announcements. He elaborated the description of the apple year by Mr. Sperry, who divided it into two periods—first three months


of "Let Us Spray," followed by three of "Let Us Pray," and added three more of "Let Us Pay" dues to the society.

Prof. Arthur B. Burrell of Cornell University opened the question box and answered several questions which orchard growers asked. For several moments, an interesting discussion of problems of the apple growers took place.

It was noticeable that among the orchardists were some prominent growers of certified seed potatoes, including Congressman Brigham, and "Uncle John" and "Aunt Serena" of the Dimock farm in Topsham. The officers of the society will be later appointed by the executive board.

Harvesting Pecans

PECANS should be knocked from the trees carefully so that the young twigs, which carry the buds for next year's crop, are not injured. The nuts should remain on the tree until thoroughly ripe unless they are being carried away by squirrels or other enemies. In such cases, the nuts should be harvested as soon as the husks begin to crack. When thoroughly ripe, the nuts can be taken off by jarring the branches; but for earlier harvesting bamboo poles are recommended. The clusters should be tapped in such a way that the nuts are knocked off without damaging the twigs. Time is saved and a larger proportion of the product is secured when canvas is spread under each tree before harvesting.



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Cut in sizes 16 and 18 years, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires only 3 yards of 40-inch material with 3/4 yard of 20-inch contrasting.
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Cut in sizes 2, 4, 6, 8, 10 and 12 years. The 8-year size requires 2 1/2 yards of 36-inch material.
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Fall Sowing for Spring Reaping

(Continued from page 4)

words, it's too much bother; and, who can blame them? That style of gardening is only to be attempted when one has unlimited time for gardening or the means to hire a full-time gardener.

Bulbs Are Adaptable

But bulbs are not the aristocratic, snobby creatures we once thought them to be. They are adaptable and friendly, and when they found that home gardeners like to put them along the borders, and almost up to the feet of shrubs or perennials, they settled themselves as comfortably as ever they had in the monstrous formal designs of the past. Not only that, but they set to work and grew longer and sturdier stems, and dozens of new shades, just to show their spirit of co-operation.

As for the short season of bulbs, that objection is based upon a knowledge of the earlier types only. From the earliest snowdrop and crocus to the latest of the tulips, to say nothing of the still later-blooming lilies, there are at least two months of such a feast of color as no family can afford to be without. This is not to discredit the annuals and late perennials, but winter lasts a long time, and nothing helps one to forget it like finding an adventurous flower peeping out to see if the snow is gone.

Even if there can be no garden proper, no fruit grower's yard is so small that about the edges there cannot be tucked a few joy-bringing bulbs for earliest spring, and if one wants to give the family a real surprise, he should try sprinkling the lawn with crocus bulbs, digging a tiny hole for each where it falls, and pressing the sod back over it. Then keep the lawn mower off the lawn in the spring until the leaves of the crocus have matured, otherwise you will find no flowers the second spring.

Use a Good Assortment of Kinds

For their earliness, one should plant a few of the short-stemmed tulips, and a sprinkling of hyacinths; but for real satisfaction, nothing surpasses the breeder, cottage and Darwin types of tulips. These types all have long sturdy stems varying from 10 to 30 inches in height, and every known shade is to be found among them. Daffodils and narcissi, snowdrops, scilla, grape hyacinths, chimodoxa (glory of the snow), all of these planted along walks or as an edge to border beds of perennials or shrubs will bloom their little span and then slip out of sight, but will not be forgotten, until next spring.

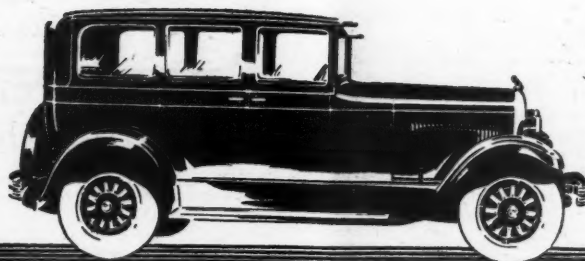
Care must be taken to avoid setting them too far back under shrubs that have a tendency to droop. The taller and later tulips should be planted at the extreme edge of such plantings or their flowers will be tangled and torn by the low-hanging branches.

When once one has made the acquaintance of those early bulbs, he needs no urging to try other and less familiar types, and nothing will give to the borders greater beauty later on than clumps of lilies or iris. As a rule, one must know his lilies before he attempts to grow them, for not all are as adaptable as are tulips. But there are several very satisfactory lilies—the old-fashioned tiger lily, the regal lily and the so-called lemon lily, all of which will do well under any and all circumstances. A little patch of lilies of the valley will perfume not a few evenings of early summer, as will the handsome funkia or white day-lily later on.

September and October Good for All but Tulips

Bulbs other than tulips may be planted any time during September and October, but tulips will be the better for later planting. Early November is a satisfactory time to put them to bed, but they, like all other bulbs, resent wet, cold feet, so drain-

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age must be provided. In other words, do not plant them in a hollow where water may collect and freeze over them.

Three handfuls of bonemeal per square yard and some sharp sand will make a healthy soil for them, but manure, even though well-rotted, should not come in contact with the bulbs.

The larger bulbs should be planted not less than five inches apart each way, to allow room for increase. Plant them, at least as deep as they are long from top to toe, but cultivate their bed at least a foot deep for their roots' sake.

No gardener would ever have wailed, as did our poet Bryant, "The melancholy days have come, the saddest of the year." Those who have gone out and "counted their many (garden) blessings one by one," find neither time nor inclination for drooping spirits. Not until there remains neither a "fall catalog of bulbs and perennials," nor one more foot of soil in which to plant, could anyone with the love of gardening in his

marrow bewail the "Autumnal death of the flowers." Instead, he carols joyously, "There is no death," as he pats each little bulb under its winter blanket while he visualizes the glory that shall be his when spring has come again.

Truly, forehandedness pays! Many weeks of pleasure are denied those families who do not begin to think garden thoughts until the sap begins to rise.

Maryland State Society Holds Mammoth Meeting at Hancock

(Continued from page 4)

partment of the University of Maryland gave a demonstration in peach tree borer control by using paradichlorobenzene.

John W. Gorby, in charge of the Apples for Health "Eat More Fruit" campaign, described the progress which has been made in financing the

drive and the proposed national advertising scheme. Following this was a demonstration of orchard tillage machinery. Plows, cultivators, tractors and other equipment were operated in a peach orchard.

A visit to Job's Turkey orchard, owned by Roy Daniels of Hancock, and inspection of the peach pruning experiments under the supervision of Dr. E. C. Auchter, where the superiority of light pruning and heavy fertilization was seen, concluded the tour. This peach orchard of 250 acres, in which pest control has been accomplished by dusting, had a remarkably even stand of trees and a heavy crop of clean fruit. A new Burke grader in the packing house was of great interest to the growers.

From Hancock the entomologists proceeded south through the Shenandoah Valley, while the horticulturists' tour broke up at this point.

The success of the meeting was largely due to the efforts of G. Hale Harrison and G. Rust Canby, president and secretary respectively of the Maryland State Horticultural Society.

So Appetizing!

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How Charles Trunk Grows Walnuts

(Continued from page 3)

the pruning is done. In cold weather, walnut pruning should be left strictly alone.

Good Soil Management Essential

"I am a firm believer in good soil management as a very necessary part of successful horticultural production of any kind," Mr. Trunk said. "We follow the practice of growing cover crops in our young orchards in order that we might build up a supply of plant food and good moisture holding capacity at the time when these trees come into bearing. Barnyard manure is just as good as the cover crop where it is available. For cover crop, we use vetch and rye, vetch and rape, and vetch and winter barley, all of which we sow after the first rain in the fall and occasionally when the moisture supply is large during the forepart of September. Cover crops are great soil builders and, conscientiously followed, will pay many fold the cost of growing them.

"Since irrigation is not available in this district, cultivation provides the only means of conserving moisture during the summer months. I am a firm believer in thorough cultivation. We dry plow as long as possible in the spring to insure a good cover crop but are always careful to get the cover crop plowed down before it reaches the point where it takes moisture which the trees should have. We plow at a depth of from five and one-half to six inches, and the plowing should not be shallower or deeper than this, as deeper plowing destroys too many of the fine feeding roots of the trees. After the plowing is done, we roll the ground with a corrugated roller, then disk both ways on a 45-degree angle, thus helping to fill the dead furrows. We then harrow, and if the weather is hot we use a drag following the harrow in order to obtain a good mulch. We cultivate our grove every eight to 10 days during the growing season and always harrow immediately after a rain. We have found that cultivation adds many times its cost in added growth and tree vigor. It has been our experience that cultivation of young trees should be stopped about the middle of July in order to force the trees into a dormant condition before cold weather sets in."

Has Achieved Success

That Mr. Trunk's method of growing a walnut grove is successful is indicated by the fact that in 28 years, starting with but \$3000 capital, he has cleared and developed a 122-acre farm, now mostly devoted to the production of walnuts and prunes, which is conservatively valued at \$100,000 and which returns a good rate of interest on this valuation. Mr. Trunk says that family co-operation has played an important part in enabling the development of such an excellent property in 28 years. Much of the credit is given to Mrs. Trunk and their two sons, John and George, who are partners with him in the business.

Kentucky Society Holds Successful Meeting

(Continued from page 10)

number of the AMERICAN FRUIT GROWER MAGAZINE that peach growers would be able to put peaches on the market at a price at which the inhabitants of the slums could buy them. For my own part, while I know there are lots of worthy poor to whom I would like to give some peaches, I cannot forget the anarchists' demonstrations which lately occurred in these haunts. We must hold up our own end, always remembering the years it takes to bring a peach orchard to maturity and the years in which no crop is secured after the bearing age is reached.

City Chap—I say, is that bull safe?
Farmer—Wal, he's a dang sight safer than you are, right now.

CHATS WITH FRUIT GROWER'S WIFE

By HAZEL BURSELL



Planting the Garden for Spring

NOTHING brings more real joy to the heart of the true garden lover than the first little flowers of spring, which poke their heads up through the dark barren earth before the snow is fairly melted and shortly flaunt gay, brave little blossoms to the breeze.

You can know this supreme joy through the expenditure of a little time and money this fall. Bulbs, lilies, primroses and violets, if planted now, will reward their owner with a succession of lovely blooms long before any other members of the flower or shrub family begin to do their duty.

Winter aconite is the true harbinger of spring, for it begins to bloom as soon as the frost leaves the ground, and its bright yellow flowers are as brilliant as sunlight in the shadowy spots which they illuminate. It is extremely hardy and everywhere desirable. Every garden should boast of at least one clump of the bulbs, if there is not space for more. It likes best a position that is partly shady, which means that it will grow under trees or shrubs, or among the perennials.

Crocus is Well Known

The crocus needs no introduction, but it should be mentioned here because it follows on the heels of the winter aconite with its flowers. In fact, the two bulbs may be massed together in a great bed on a gentle slope with marvelous effect. Besides these, there is the snowdrop, to be had in single or double-flowered form, which frequently blooms before the snow is gone in northern regions. These three together will furnish three or four weeks of bloom at a time when flowers are most appreciated.

The crocuses will grow practically anywhere, in shade or sun, rich soil or poor soil, and they will continue to grow and seed new plants provided the leaves are never cut or pulled until they have died down. Hence, they should not be scattered through the lawn which will invariably need cutting before they have matured. The same rule applies to all bulbs—they should be allowed to ripen and die down before the tops are cut.

The snowdrop is the shade lover and should be planted where the heat of the sun cannot reach the roots. The bulbs are very small and need to be set close together, almost touching, in fact, under about three to four inches of earth. Solitary specimens of any type of small flower do not produce the desired effect.

Another early flowering bulb which is delightful when used in mass effect is the Siberian quill. The flowers are a lovely blue in color, and the plant is suitable for lawn planting, as it matures very quickly after blooming. Glory-of-the-snow is another early-blooming blue flower.

Bulb Culture Detailed

Tulips, hyacinths, jonquils, daffodils and narcissi may be had in hundreds of colors and types of blooms. These bulbs should also be planted in the fall if they are to attain their best growth and produce the most handsome blooms in the spring. They may be planted in porch boxes, borders, clumps and in definite beds. Color combinations and arrangements will be determined by the gardener's preference.

All these bulbs require a rich, mellow sandy soil to give the best blooms. Bonemeal is a good fertilizer for bulb beds, as it does not burn the flowers and furnishes plant

food over a period of time. Well rotted manure mixed with earth will also serve the purpose well. Tulips, hyacinths and the members of the narcissus tribe should be planted in sunny locations in order to obtain early blooms. Some varieties bloom earlier than others, and this fact can be used to advantage in beds and borders, thereby prolonging the blooming season.

Hyacinth bulbs are quite expensive, but each flower lover should have at least a few because of their fragrance and color. The single flowered type is preferable, as the double-flowered spikes of blooms seem too compact and heavy. Hyacinths come mostly in lovely pastel colors.

Seeds Which Can Be Sown in Fall

Certain seeds do exceptionally well if sown now and allowed to lay in the ground over winter. This is especially true of sweet peas, hollyhocks, phlox, canterbury bells, fox gloves, and various other types of hardy perennials and biennials. Indeed, to sow these now is strictly in accordance with Nature's own fashion, for left to themselves, the seeds fall onto the ground as soon as they ripen in the autumn and either lie over winter under a blanket of leaves to germinate in the spring or germinate at once and rest under the same covering as tiny plants. Phlox seed loses its vitality rapidly and should be allowed to germinate as soon as it ripens for good results.

Sweet peas may be sown in a double row in a trench six inches deep and four to six inches wide, and covered an inch deep with earth, then with leaves and litter held in place by branches which will keep water from settling in the trench. In the spring this litter is removed, and as the seedlings appear and their stems lengthen, the earth is gradually filled in until the level surface is reached.

Transplant in Fall

The fall is the time to transplant perennials and biennials to their permanent growing places in the perennial beds or borders. It is also the time to rearrange and move any plants to more desirable locations in order to correct faults in arrangement. Most plants are fully matured at this season and will be disturbed less than later.

All fall transplanted plants must be given a six-inch layer of leaves as a mulch as soon as the ground is frozen. Letting the ground freeze first will prevent the plant from growing too soon, and the mulch will then protect the plant from alternate intervals of freezing and thawing. Frost is not disturbing if it is held fast in the ground and not allowed to go and come, and the mulch is what holds it thus. A mulch is beneficial to all perennial gardens whether recently transplanted or not, both as a protector and soil enricher.

Certain large trees and evergreen shrubs can and should be transplanted in the fall, while certain others should not. To move a tree, you should begin digging in a circle of considerable size, then work down and around between the roots when possible, taking care not to destroy the important feeding roots which have their tips in this circle. You will need a spading fork, a crowbar or pick and a long-nosed shovel for tree transplanting. Be sure to move the tree with a large ball of earth in the center. Move it carefully to the new location,

place in the prepared hole with a quantity of loose dirt, arrange the lower roots, and fill in more dirt in succeeding layers until the hole is pretty well filled. Pack the dirt firmly around the roots as you work.

Certain Bulbs Freeze

There are other things to be done in preparing the garden for winter. All bulbs and tubers which can be destroyed by frost must be dug, washed, dried and stored in a frost-proof place just after the first light frost. Dahlias, gladiolas and cannas come under this classification. Each plant or color should have been labeled carefully while in bloom so that it may be identified in the spring. If you possess some "undesirable" varieties, the time to get rid of them is in the fall when they are being dug.

Seeds that have been allowed to mature for next season should be gathered and stored in labeled packages in a dry place. Geraniums, petunias and fuchsias which have been used in flower beds and boxes may be transplanted to pots and taken indoors for house plants. Or, they may be stored in the basement with a certain amount of dirt on their roots until next spring. With an occasional watering, they will fare well and be ready, after a thorough pruning, for another season of blooming. Balsams and forget-me-nots also make lively house plants after their outdoor season is over.

Another way to preserve plants for another season is to take healthy slips from such plants as chrysanthemums, snapdragons and geraniums soon after the blooming season is over and before the first frost. Place these slips in moist sand in a box where they will receive a small amount of light, and water them as often as needed to keep them from drying out. These slips make stronger plants than the old parent root would make if used the second season.

Some Need Wrapping

Certain valuable evergreen shrubs and some roses should be protected from frost with a wrapping of burlap and a mulch of coarse manure or straw around the stock. This is especially important in all the northern states.

Leaves should be raked from the yard and garden and placed around the plants and over the flower beds needing such a protection. All dead annuals, tops from perennials and other discarded potential humus should be used for mulch or placed in a pit to rot for fertilizer for the coming season. In this way, the careful gardener can put back into the soil much of the material taken out of it each year by growing plants.

Hallowe'en Party Recipes

WHY NOT have a jolly Hallowe'en party and invite in all your friends for a gay, old-fashioned party? You could plan some lively games, have some radio music, arrange tables for cards, and serve simple refreshments. Hallowe'en "eats" should give you no particular trouble as the appropriate ones are sandwiches, pickles, black coffee, pumpkin pie, doughnuts, cider, grape juice, fresh apples and nuts. The main thing is to provide ample amounts and have each thing served at the perfection of its type. Do not, however, serve all of the above items at one party. Here are some recipes:

Grape Juice Punch

Prepare the juice from fresh grapes by washing, stemming and boiling them with water to barely cover until fruit is soft. Strain through cloth bag, put juice back on stove and heat with sufficient sugar to sweeten moderately. To make the punch, place the grape juice in a large bowl or bucket, add the juice of half a dozen oranges and three lemons to each quart of grape juice. Add a large chunk of ice, additional sugar to sweeten and 1 c. of water to the quart of grape juice. Placing the rinds of several oranges and lemons in the punch and leaving them for 10 minutes imparts a delightful flavor to the drink. The perfect punch should be ice cold, sparkling, clear and mild flavored with an ever-so-slight tartness to give zest. The recipe can be varied to use almost any good-flavored, juicy fruits the housewife may have on hand.

Sandwiches

Slice fresh bread thinly and evenly with

a sharp knife, keeping the slices in order so that sandwiches will fit together perfectly. Butter both slices with slightly warmed butter and fill with some suitable substantial filling. Lettuce may be used as desired, but it wilts if the sandwiches are to be made early and eaten later. Any kind of meat makes a good filling. It should be run through the food chopper and seasoned well with boiled dressing, salt and pepper and chopped sweet pickle if desired. Other fillings would be egg salad, made with chopped hard boiled eggs, chopped sweet pickle, pimento, boiled dressing and seasonings; cream cheese with ground nuts and raisins or dates; peanut butter with ground dates or raisins and dairy butter; grated American cheese with ground nuts and chopped pimento mixed with dressing. Other good fillings may suggest themselves from the materials at hand.

Doughnuts

1 c. sugar
2 1/2 T. butter
3 eggs
1 c. milk
4 t. baking powder
1/4 t. cinnamon
1/4 t. nutmeg
1 1/2 t. salt
Flour to roll

Cream the butter and add half of the sugar. Beat egg until light, add remaining sugar and combine mixtures. Add 3/4 c. flour, mixed and sifted with baking powder, salt and spices; then enough additional flour to make dough stiff enough to roll. Toss one-third of dough on floured board, knead lightly, pat and roll out to one-fourth inch thickness. Shape with a doughnut cutter, and fry a few at a time in deep fat, take up on a skewer and drain on brown paper. Add trimmings to one-half remaining dough, roll, shape and fry as before. Finish with remaining dough. Roll doughnuts in sugar.

Frying Doughnuts

Fat for deep frying must be at just the

right temperature for good results.—If too hot the doughnuts will not raise properly; if too cool they will soak grease. To test the temperature for uncooked mixture, drop an inch cube of bread from soft part of loaf in fat and if it turns a golden brown in one minute the temperature is just right. Doughnuts should come quickly to top of fat, brown on one side, and then turned to brown on the other.

Boiled Dressing

1 T. flour
1 1/2 T. sugar
1/4 c. vinegar
2 egg yolks
1/2 T. salt
1 t. mustard
1/4 c. milk
1 1/2 T. butter
Cayenne

Mix dry ingredients, add beaten egg yolks, then milk, and lastly add vinegar a little at a time to prevent curdling. Cook in double boiler until smooth and thick, stirring constantly. If too thick, thin with milk or cream. Add butter after taking from the stove.

Sweet Cider

Select windfall or cull apples, pick over most carefully to eliminate any decayed fruit, as rot will ruin the flavor of the cider. Cut open any doubtful apples to ascertain whether or not the heart is sound. This is most important! Run the fruit through the cider press, allow the juice to stand 15 to 18 hours, and serve cold.

Pumpkin Pie

1 pt. pumpkin
1 pt. sweet milk
1 c. sugar
2 eggs
1 t. ginger
1 t. cinnamon
1 t. nutmeg
1/2 t. salt
Molasses to color
1 T. butter

Heat ingredients together until boiling, add beaten egg mixed with part of milk last. Pour immediately into pastry pan lined with one crust. Prick the crust to prevent steam bubbles. Bake in hot oven

at first, then lower the heat. Prepare the pumpkin by steaming until tender, then mashing through a sieve to secure a smooth consistency. Serve the pie with whipped cream, if possible. The filling recipe makes one large pie or two small ones.

Raised Doughnuts

1 c. milk
1/4 yeast cake
1/4 c. warm water
1 t. salt
1 t. nutmeg
1/4 c. shortening
1 c. light brown sugar
2 eggs
Flour

Scald and cool milk; when lukewarm, add the yeast cake dissolved in water, salt and flour enough to make a stiff batter; let rise over night. In the morning add shortening (lard and butter mixed is best), eggs well beaten, spice and enough flour to make a stiff dough; let rise again and if too soft to handle, add more flour. Toss on floured board, pat and roll to three-fourths inch thickness. Shape with cutter, and work between hands until round. Place on floured board, let rise one hour, turn, let rise again. Fry in deep fat and drain on brown paper. Cool and roll in sugar.

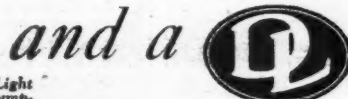
Table of Abbreviations

1 t. equals 1 teaspoonful.
1 T. equals 1 tablespoonful (3 t.).
1 c. equals 1 cupful.
1 pt. equals 1 pint (2 std. c.).
1 qt. equals 1 quart (2 pt.).
1 lb. equals 1 pound (16 oz.).
1 oz. equals 1 ounce.
All measures level.

"Apple Growing in California," is the title of Bulletin 425 of the University of California, Berkeley, Calif. The author is F. W. Allen.

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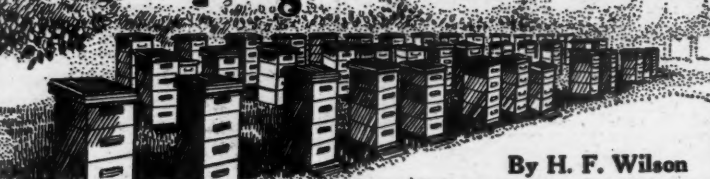
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Bee Keeping for Fruit Growers



By H. F. Wilson

Fall Care of Bees

AUGUST and September are important months in the yearly routine of the beekeeper, for it is during this period that we must begin to get our bees in the best possible condition for the winter and for the next season's honey flow.

But there are other manipulations which are also important in October. Young queens produced in August will continue to lay until September and even up until the middle of October, provided sufficient stores are available at all times to feed the young brood as it develops. If individual beekeepers happen to be located in regions where there is a fair honey flow during September, it will probably not be necessary to provide additional stores; but if there is no fall honey flow, sufficient stores of honey or sugar syrup must be given the bees so that they will have an abundance of food for fall brood-rearing.

Also, during this period beekeepers should make their plans for winter protection. If the bees are to be wintered out-of-doors, the packing materials should be collected and thoroughly dried out, otherwise they are bound to absorb moisture, and even as small an amount as 10 per cent of moisture in the packing will prevent satisfactory insulation. If the bees are to be wintered in the bee cellar, the cellar should be thoroughly dried and cleaned. Also, if the bees are not provided with a suitable wind-break, one should be provided, or the bees should be shifted in the late fall to a sheltered position.

Extreme care should be taken to provide good winter stores. If supplies of honey have not been kept on hand from the main honey flow, it will be necessary to feed sugar syrup. Each colony should weigh at least 50 to 55 pounds at the time when the winter period starts.

If these instructions are carefully followed, the winter losses will be small and good strong colonies will be ready to take up the work of brood-rearing the following spring.

Careful Manipulation Will Prevent Excess Collection of Pollen in the Fall

IT VERY frequently happens that colonies of bees store large quantities of pollen in empty combs during the fall period when too much room is available. This is normally brought about by permitting the bees to have the freedom of two or three brood chambers. It is, therefore, desirable that after the honey flow is over, the queen be placed in the lower story with a queen excluder between any additional supers that may be left on the hives. If the queen is allowed to work in the second story and no honey flow is available, the bees are almost sure to fill the bottom combs with pollen. This excess pollen is not normally needed by the bees and is troublesome to the beekeeper because it is difficult to get the pollen out of the combs. If it is desired to preserve combs with pollen, they should be kept in a medium warm building with sufficient moisture present in the air so that the pollen will not dry out and become hard.

Care of Honey

EVERY BEEKEEPER can reduce the waste in bottling and increase his sales by a more careful handling of honey. Serious losses sometimes

occur from fermentation of honey during the winter months. This difficulty can be almost entirely prevented through careful heating and thorough straining out of particles of wax and propolis. Heat slowly to 160 degrees Fahrenheit, and bottle or can the honey while still hot. Honey heated to 160 degrees Fahrenheit will not crystallize quickly and may remain in liquid form for a year or longer.

Unheated, extracted honey in 60-pound cans should be kept in storage where the temperatures do not fluctuate to a very great degree. Continued changes of temperature through a wide range often bring about fermentation.

Comb honey should be stored in a warm room where the temperature can be maintained as evenly as possible. Continued changes of temperature, particularly from low to high, bring about early crystallization.

The Medicinal Value of Honey

THE MEDICAL fraternity and hospitals throughout the United States are rapidly becoming used to prescribing honey in the diet of invalids and particularly those suffering from diabetes. Some conclusive evidence is being brought out to the effect that many invalids who cannot use sugar and similar sweets in their diets, may use honey more or less freely without any of the serious effects which ordinarily develop from some other sweets. It is a well known fact that a great many people suffering from diabetes cannot use sugar at all, or only in very minute quantities. Quite a number of these same people have found that honey may be used, and cases have been reported showing that honey may be used quite freely without any ill effect. It is also known that bacteria which cause some of our common diseases, such as typhoid fever and dysentery, cannot live in honey for more than a few hours.

We may therefore expect to find, when proper investigations have been made, that honey has strong medicinal qualities, and that it will be deemed as necessary in the diet of people as many of the products now used for the healthful development of the human body.

The Dr. Charles C. Miller Memorial Apicultural Library

IT IS of general interest to the beekeepers of the United States to know that a fine beekeeping library, started in honor of Dr. Charles C. Miller of Illinois is located at the University of Wisconsin. Books in this library are available to beekeepers throughout the United States on the payment of postage charges.

This library now contains nearly 5000 separate items of books, pamphlets and volumes of bee journals. These books have been collected from all parts of the world and are printed in the languages of every civilized nation. Beekeepers who have old volumes of bee journals or books on beekeeping should make it a practice to send such material to the library so that they may be preserved indefinitely, for the good of the beekeeping industry.

Circus Man-If the leopard gets out of the cage, shoot him on the spot. Guard-Yes, sir. Which spot?

How to Make Better Grape Juice at Home

By Mrs. L. H. Funk

THE ORDINARY WAY of crushing and stewing grapes in order to obtain their juice does not yield a product that does full justice to the grape.

A better method is to crush the grapes, add one quart of water for each 16 quarts of grapes, and place the kettle containing them over a second kettle containing hot water. The grapes are thus steamed instead of stewed, until tender. Their juice is extracted in the usual way, by pouring the cooked fruit into a jelly bag and allowing it to drip over night. Holding the strained grape juice over night in this way permits it to settle; then the clear top juices can be poured from the sediment.

The following day, strain the juice into bottles or glass fruit jars, adjust the covers and rubbers, then set on a rack in a covered boiler or kettle or on the shelf of a steam cooker. If a boiler or kettle is used, warm water should be added until it comes up to within about one inch of the tops of the bottles. The water is brought gradually to the boiling point and should boil from 20 to 60 minutes, according to the size of bottles or jars used. At the end of the processing period, the jars should be sealed and the tops of the bottles dipped in wax or paraffin. The juice is then ready for storing.

No sugar need be used in making grape juice; it will keep satisfactorily without sugar. If sugar is desired, add it to the juice before pouring it into the container, using one-eighth to one-fourth cup to each quart of juice.

A second grade grape juice may be made by returning to the preserving kettle the pulp left after the juice has dripped from it, covering it with water, heating gradually and allowing it to simmer slowly from 20 to 30 minutes. It is then treated by the method already described. Second grade grape juice is strong enough, after a little concentration, to make excellent jelly.

Classified Advertising

FEMALE HELP WANTED

GIRLS-WOMEN WANTED-LEARN GOWN making at home. \$35.00 week. Learn while earning. Big demand. Sample lessons free. Write immediately. Franklin Institute, Dept. R-545, Rochester, N. Y.

FERRETS

FERRETS FOR HUNTING AND RATS. PRICE free. Roy C. Greene, Wellington, Ohio.

HELP WANTED

U. S. GOVERNMENT JOBS-\$1140-\$3300 YEAR. Men-women, 18 up. Steady work. Common education sufficient. Sample coaching and full particulars free. Write immediately-today sure. Franklin Institute, Dept. R-79, Rochester, N. Y.

MANUSCRIPTS WANTED

EARN \$25 WEEKLY, SPARE TIME, WRITING for newspapers, magazines. Experience unnecessary. Details free. Press Syndicate, 970, St. Louis, Mo.

NURSERY

PEACH TREES, \$5.00 PER 100 AND UP. APPLE trees, \$7.50 per 100 and up. In large or small lots direct to planters by freight, parcel post, express. Plums, pears, cherries, grapes, nuts, berries, pecans, vines; ornamental trees, vines and shrubs. Free catalog in colors. Tennessee Nursery Co., Box 101, Cleveland, Tenn.

APPLE AND PEACH TREES, 50 AND UP; grapevines, 3c, best varieties. Catalog free of fruits, berries and ornamentals. Benton County Nursery, Box 211, Rogers, Ark.

PECAN GROVES

TWO PECAN GROVES ADJOINING EACH other one mile from city of Barnesville of 4000 population. One grove 25 years old containing 25 acres, price \$1000 per acre. Other grove 3 years old containing 50 acres, price \$200 per acre. Terms 1/4 cash, balance easy terms. Should be seen to be appreciated. W. C. Stanford, Barnesville, Ga.

PERSONAL

RHEUMATISM-I WILL GLADLY TELL ANY one how I was cured in four days after two years' terrible suffering. It makes no difference what form you have, what you've tried or how long standing. Send name and address today. Dept. Z, Box 147, Little Rock, Ark.

POSITION WANTED

ORCHARD MAN, SINGLE, WANTS ORCHARD position or work pruning. Eight years experience in commercial orcharding. Address Box 91, American Fruit Grower Magazine.

Engineering for the Fruit Grower

By E. W. Lehmann

Save the Soil

THE FACT that many fruit growers farm rolling and hilly farms prompts me to again emphasize the importance of giving attention to soil washing. On a recent trip across southern Illinois and southern Indiana into Kentucky, I saw many fields badly eroded that could have been saved by proper precaution. Don't forget that a number of the state experiment stations and the United States Department of Agriculture are giving attention to this subject and they stand ready to assist you in the solution of this problem.

In a recent issue of *Agricultural Engineering*, Lewis A. Jones of the United States Department of Agriculture made a statement on conserving soil resources that should interest every man who owns land that washes. The statement follows:

"An AGRICULTURAL engineering problem of far-reaching importance is the control of soil erosion. This problem is basic. There is little to be gained for agriculture by improving machinery, fertilizers, seed, etc., if we do not prevent the loss of the soil on which these are applied. Investigations by federal and state agencies indicate that 20 average crops do not draw as much fertility from the soils of the United States as is lost in one year by erosion. Agriculture cannot be profitable on farms worn out by erosion. Agricultural engineers have already made marked advance in providing the remedy for soil erosion by developing the practice of terracing rolling farm land. But what is needed now is a general appreciation by the agricultural industry and the public at large of the importance of this problem and the serious results that will come if adequate steps are not taken to put a stop to this enormous loss of the most valuable and most vital of our national resources."

Mechanical Equipment an Important Factor in Marketing

ONE OF the first considerations in marketing any product is quality. The consuming public will consume no more of a poor quality product than of a good quality product for which he will pay a better price. The quality of a product as it reaches the consumer depends not only on the quality when delivered from the field by the grower but also on the method of handling. Some of the factors involved are grading, packing, loading, transportation, storage, etc.

The first step—grading, sorting, cleaning and packing—requires mechanical equipment. While a mechanical grader will separate according to size, it will not sort according to degree of ripeness. Every experienced fruit grower appreciates the importance of a uniform pack. Proper barrels, crates or baskets should be provided to meet the requirements of the trade. The inefficient farmer who floods the market by the wagon load with low grade fruit in bulk spoils the market for the man who has a better quality product as well as for himself.

Transportation is an important factor in handling the fruit crop. The motor truck and the improved roads of the country are playing a large part in the solution of this phase of the fruit grower's problems. Fruit in many instances is delivered direct to market by truck, resulting in a great saving in time, labor and transportation costs. On long hauls or when time is an important factor in getting the product on the market, trucks are of special value. By the use of better marketing equipment, the production area is extended. In some sections where truck routes are organized for

express service to the farmer's door, the small grower or farmer has an opportunity to dispose of surplus fruits and vegetables which would otherwise go to waste.

Mechanical refrigeration is also playing an important part in marketing fruit. Many storage houses in cities are equipped for storing fruit for the public. Fruit is bought in quantity, put in storage and taken out as needed. Individual fruit growers are also providing adequate storage facilities so they may get the benefit of advanced prices later in the season.

Some Mechanical Hints

FALL is the time of the year to store all tools and implements that have been used during the year. It is also a good time to paint all sharp edges and polished surfaces liberally with old crankcase oil or some other coating which will prevent rusting.

When the spraying machine has been used the last time for the year, take it apart, wash it thoroughly, and oil all wearing and polished surfaces. Troubles found in a sprayer when taken into the field are often due to neglect the season before.

New leathers on the water pump will make it more efficient and reduce the electric energy used if it is an electrically driven outfit. New valves and seats also need replacing occasionally. If a pump is not to be used for some weeks, put some oil into the cylinder and around the valves to prevent them from sticking.

Fence Costs

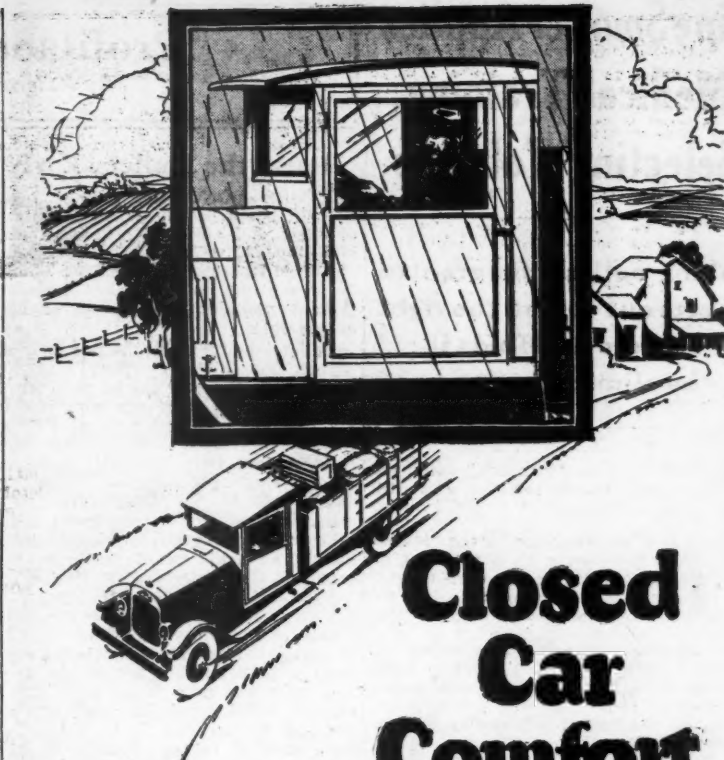
IT COSTS about 10 cents a rod a year to keep up fences on the ordinary farm in the grain farming sections of Illinois, according to records kept for the last four years by 10 Champaign and Platt county farmers in co-operation with the College of Agriculture, University of Illinois. The cost includes labor or maintenance, materials for repairs, interest on the investment and depreciation. The total annual bill for maintaining fences on each of the farms averaged \$115, there being an average of 1150 rods of fencing on each of them. The average size of the farms was about 225 acres.

This cost of 10 cents a rod easily would be doubled if the losses from fences which ordinarily are overlooked were added to the cost of upkeep. These losses include the loss of the use of the land occupied by the fence, the loss of crops caused by turning on the growing crop, and the cost of labor for cutting weeds along fences. Then, too, permanent fences often separate two fields in which the same crops are growing, thus causing a loss, because it costs more an acre to operate two small fields than it does one large field.

Use Good Materials for Concrete

CONCRETE has many advantages as a building material when compared with the materials it replaces. It can be easily worked into irregular shapes, it is compact, impervious to moisture, is permanent and is sanitary. One great advantage in the use of concrete is that it can be placed with unskilled labor. To obtain best results, good forms, good cement, clean water and good clean sand and gravel must be used. Proper precaution must be taken in the mixing, placing and curing.

Cement that contains hard lumps should not be used, and, to keep it from getting lumpy, it must be stored in a place in which it will not absorb moisture. The sand used should not be too fine and should be free from silt or organic matter. In any event,



Closed Car Comfort

Your drivers, who have to pilot trucks a long way to market, will best appreciate the closed car comfort of the cabs on the new Speed Wagons.

For Reo, keeping Speed Wagons ahead of the crowd now as in the past, have not only improved Speed Wagons mechanically in many ways, have not been alone content to give the added safety of four-wheel brakes, but have also made Speed Wagon cabs as comfortable as most of the closed cars on the road today.

Drivers won't quit because of disagreeable driving weather when they handle these new models.

See the New Speed Wagons at your dealer today.

REO MOTOR CAR COMPANY - Lansing, Mich.

The JUNIOR

For loads up to one-half ton \$895
Chassis at Lansing

6 Cylinders
4-Wheel Brakes
Coupe Comfort

The STANDARD

For the world's average load — up to a ton and a half. \$1345
Chassis at Lansing

6 Cylinders
4-Wheel Brakes
Coupe Cab

The MASTER

A little huskier than the Standard — for hauling loads up to two tons. \$1645
Chassis at Lansing

6 Cylinders
4-Wheel Brakes
Coupe Cab

The HEAVY DUTY

For hauling heavy loads — up to three tons. \$2185
Chassis at Lansing

6 Cylinders
Dual Internal Brakes
Coupe Cab

SPEED WAGON

for faster, surer, easier, cheaper hauling

the stone and pebbles should be clean and hard, and material that is graded is more satisfactory than that which is uneven.

Most concrete flows readily when it is first placed in the forms, therefore, it is essential that the forms be tight, because if any of the wet mortar escapes, it weakens the structure and leaves holes in the concrete after it is set.

Recent studies on concrete construction indicate that the amount of water used is a big factor in determining the strength and density of the final product. A mixture of cement and water forms a paste which serves as a binder to hold the particles of sand and gravel together. To increase the amount of water beyond a certain point, reduces the value of the cement as a binder. The Portland Cement Association, whose headquarters are at Chicago, Ill., are in a position to give information on this point as well as on other details of concrete construction.

Put Your Name on Your Truck

A NEATLY lettered name on the side of the truck is one of the best methods of advertising the farm. In addition to the name of the farm, give also the specialty for which the farm should be known. If you grow fruit and have it for sale, don't be backward about saying so. The name on the side of a truck will help in making sales because the public will know that there is a farm back of the truck and not hucksters.

No commercial concern would fail to use the truck as an advertising medium, yet there are many farmers who neglect this opportunity to acquaint the public with their product and their business. It is also true that the man who has his name on his truck takes a greater pride in it and keeps it in the best of condition. It is simply good business to advertise your business on your truck.

Pipe Smoker Applies Medical Training Selecting Tobacco

Taking nothing for granted he sets out to find the right tobacco and finds it by elimination test

Some folks act on "hunches," some on emotion, some on pet theories, and still others on cold logic.

Here is a pipe smoker in the "logic" class. And the reason, as he explains, is that for three years he has been taught to take nothing for granted, but to prove his way as he goes.

So when he took up pipe-smoking he simply applied laboratory rules in finding the right tobacco. Now he is satisfied that he is not smoking a certain tobacco on theoretical superiority but on proven worth.

Mr. Plaine, the medical student in question, writes as follows:

Larus & Bro. Co.
Richmond, Va.
Gentlemen:

Most medical students by the time they reach the third year of their work have absorbed the scientific spirit. That is, we take nothing for granted unless it has been confirmed by experiment or other reliable means. Prove it, we say!

Some time ago I decided to start smoking a pipe. Choosing the pipe was easy enough, but finding the tobacco to go with it was not so easy. I experimented, trying one tobacco after another. Some would have a fragrant aroma, but oh—what a taste they would leave! Others left my mouth like a furnace. A few reminded me of a poorly ventilated chemical laboratory.

I had almost decided that what I was looking for—a cool, sweet taste and a pleasant aroma—was impossible. Finally, I took the advice of one of the fellows and tried your good ole blue can. Eureka! You can't get me away from it now.

You should call Edgeworth—"money's worth."

Sincerely yours,
Irving H. Plaine.

To those who have never tried Edgeworth we make this offer:

Let us send you free samples of Edgeworth so that you may put it to the pipe test. If you like the samples, you'll like Edgeworth wherever and whenever you buy it, for it never changes in quality.



Write your name and address to Larus & Brother Company, 13 S. 21st Street, Richmond, Va.

We'll be grateful for the name and address of your tobacco dealer, too, if you care to add them.

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Edgeworth Ready-Rubbed are packed in small, pocket-size packages, in handsome humidor holding a pound, and also in several handy in-between sizes.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one- or two-dozen carton of any size of Edgeworth Plug Slice or Edgeworth Ready-Rubbed for the same price you would pay the jobber.

On your radio—tune in on WRVA, Richmond, Va.—the Edgeworth station. Wave length [254.1 meters], 1180 kilocycles.

Profitable Poultry

By Ralston R. Hannas

House the Pullets Early

BEFORE LONG, the pullets' eggs will begin to appear in the flocks of April and early May hatched pullets—indeed, they may have already appeared in some flocks. This should be a warning to get these birds in their permanent quarters as quickly as possible.

Pullets should really be put in their laying houses before they start to lay, but if they are put in as soon as the first pullet eggs are laid, this is not too late. The purpose of putting them in their houses is fourfold: first, to accustom them to their quarters before they get started laying so there will be no delay after they start; second, to mature them properly and more easily by feeding more heavily of grain or of mash, as the case may be, to retard or hasten development as needed (if birds are laying while their bodies are still small and undersized, feed heavily of grain; if birds have developed good body growth but are not laying, feed less grain and more mash until laying starts); third, to prevent any setback or molt by moving them after they have started laying; fourth, to prevent any colds or other sickness. If pullets are permitted to stay out on range until late in the fall, they are very likely to develop colds that will run into canker or roup due to the exposure to the cold, damp weather that frequently predominates at that season.

There is a fifth reason that is not so important, namely, to prevent the habit of laying eggs on the floor. In these range houses, there are usually no nests and the pullets get in the habit of laying on the floor, since there is no other place in which to lay. If they are allowed to stay in these houses for a long time after they have begun to lay, they are likely to have this habit of laying on the floor so well formed that it will be difficult to break them of it.

Paint the Buildings

MANY FOLKS think chicken houses don't need paint, yet they will religiously oil their boots to preserve them. And they have several times the amount of money invested in their chicken house than they have in their boots!

The purpose of paint is primarily to preserve; looks are incidental. Preservation of a poultry house will, of course, add to its life and usefulness and will decrease the amount of depreciation each year that must be figured, since it will be spread over a longer period. This will mean adding to the profits of the poultry flock.

In the past few years, poultry has enjoyed the distinction of being a money-making crop on practically all farms. Feed has not been high, and the demand for eggs and poultry has been good. This year, egg and poultry prices have not been high, but feed is high. This does not mean that there is no longer any profit in poultry, but it does mean that hit and miss methods must go and that careful, efficient methods of caring for the flock must be followed. Flocks will no longer be profitable that are allowed to shift for themselves in houses that are forced to do the same.

Therefore, anything that can be done to increase efficiency, cut down expenses, make equipment last longer, or add to the price of the product produced, will aid in maintaining the flock on a profitable basis. Following modern methods of caring for the flock will increase the efficiency; producing and marketing high quality eggs will add to the price; and painting the poultry buildings will make a part of the equipment, at least, last longer. Painting the chicken houses will add also to their attractiveness

and may, if located on a main highway, attract more customers for the eggs and poultry.

Don't Force a Molt

ALONG about this time of the year, many flock owners will think—if their birds have been laying pretty well—that they should slow up their birds so they will have a chance to rest and will produce strong, fertile eggs for hatching in the spring. These men will therefore try to force the hens to molt.

This is the wrong thing to do. Let the birds molt when they are ready to. It is generally conceded that the late molters are the best birds. It is also a fact that the late molters will molt quickly, as a rule. If the old birds do not molt by the latter part of October or November, then the owner is justified in trying to make them, but not now.

When the hens do start to molt, don't try to hurry them through. Let them molt normally, for this is their rest period and time to build up their bodies for the season of production and reproduction. Many flock owners will try to force a greater consumption of mash so the birds will lay sooner. Don't do this. The best plan to follow when birds are molting is to feed them all the grain they will eat, for this will help them grow their feathers, take on weight and build up their bodies generally. This does not mean feed them only on grain, but largely on grain, keeping the mash before them as well. Birds in this condition should be fed grain at the rate of about 14 pounds per 100 birds per day.

Green food, grit, oyster shell and fresh water are also necessary for the birds while molting. If a yard containing a good supply of green food is not available, cut it from another yard or field and carry it to them, giving them what they will eat in about 20 minutes. The other items mentioned should be before them at all times.

Make Changes Gradually

ALL CHANGES in the management of poultry should be made gradually. This is especially necessary with the young birds that are coming or soon will come into production.

The all mash system of feeding chicks and growing birds has become quite popular in many sections, but the use of the all mash system for laying hens is not so popular just yet. Therefore, there is a change in the system of feeding the birds when they are put in the laying houses, that is, a dry mash is kept before them all the time and the grain is fed in the litter, instead of feeding it all as a mash as in the all mash method.

Pullets are rather slow to get the idea of scratching for their grain, so the change cannot be expected to be made suddenly. They will be used to eating from the mash hopper, however, so in order to induce them to pick up the grain, sprinkle some of the grain on top of the mash and a little on the floor. To this end, the floor should have only a thin layer of litter so the grain may be easily seen. When they have become used to picking the grain from the floor, the amount of the litter may be increased until the regular amount is used and all the grain is fed in the litter. If it is not desired to feed the grain in the litter, it may be fed in hoppers, as the mash is, but it should be fed separately. Many poultrymen prefer to do this, as they prefer to regulate the amount of grain fed and dislike to feed the grain in the litter because they consider it an unsanitary practice.

Rambles of a Horticulturist

(Continued from page 7)

out in the serving room. The kitchen is also abundantly equipped with drawer and shelf space. There is a dumb waiter running from the kitchen to the basement. A small room adjoining the kitchen contains an electric refrigerator and facilities for taking care of milk and other dairy products. A gas well in the doorway supplies fuel for cooking.

Back of the kitchen and on the main floor is Mrs. Dunlap's laundry. She doesn't approve of this being in the basement. It is equipped with one of the most modern electric washers and wringers, electric ironing board and other equipment that a man cannot properly appreciate. Mrs. Dunlap takes great pride in doing all of her own housework and says that it is her conveniently arranged house which makes this possible.

On the north side of the main floor and just off the front hallway is Senator Dunlap's office. Like the remainder of the house, it is splendidly fitted for efficient work as well as for comfort while doing it. I was particularly interested in looking through an elaborately prepared leather covered book which rested in a splendidly carved wooden case. It was presented to the Senator many years ago by the University of Illinois in token of his efforts in behalf of the institution. It contained appropriate expressions of appreciation, as well as the signatures of all leading members of the faculty.

Food for Thought

A visit to such a place as that of the Dunlaps sets one to thinking. Here is a couple, perhaps past the prime of life, who have accomplished things in life worth while. They started out with practically nothing but good educations, a desire to work, faith in themselves and in their surroundings, and a lot of good, practical common sense. They set out to build a home and a business and a good standing among their fellow citizens. They adopted a conservative plan. They did not depend on speculative ventures but kept everlastingly driving toward their goal. Money was not their chief object in life, but, incidentally, they obtained sufficient of it to enable them to enjoy every advantage and convenience that modern civilization can offer. They lived clean lives and they have clear consciences. They have achieved business, political and social success in the fullest sense. What more could one want in life? What is there one might crave after having achieved these ends?

Young men and young women who are starting out in fruit growing nowadays can get a lot of inspiration from such folks as the Dunlaps. Of course, conditions are different now from what they were when the Dunlaps started, and therefore success will have to be worked out along somewhat different lines. But the same principles are involved now as in the years gone by, and the opportunities are as good as they ever were for young folks who start out with the same principles as did the Dunlaps. While fruit growing has its difficulties, there is no line of activity which offers better opportunities for clean living and the building of a useful citizenship.

Old Lady (to man hunting golf ball): "I'll tell you where it is if it isn't cheating."—Leatherneck.

SPECO GRAPE VINE DRAPER
NEW! Only thing of its kind on market. Made of rust-resisting metal; pliable and easily handled. Saves time and labor in draping. Will stand many pounds pull, cannot harm vine. Costs less than one-half cent each. Send \$1.00 for trial box.
SPECIALTY SALES CO., 4910 Rice Street, Chicago.

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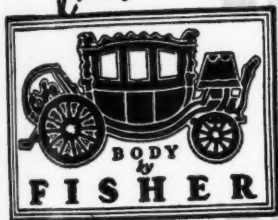
It helps keep down weed growth, conserves moisture and fertility, and makes your land easier to work the following Spring.
Let us send you valuable illustrated Free Book The Soil and Its Tillage; also complete catalog and prices of Clark Cutaway Disk Harrows and Plows for horses and tractors.
THE CUTAWAY HARROW CO., 128 MAIN ST., HIGGANSUM, CONN.



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The emblem "Body by Fisher" has long been associated with the world's finest automobile coach-work. You will find this emblem on the body of every Chevrolet enclosed car.

All the beauty, comfort, style and elegance that Bodies by Fisher assure!

A chassis famous the world over for its remarkable performance and economy! The most impressive prices ever placed on a car of such quality!

Truly, today's Chevrolet provides the world's outstanding combination of beauty, performance and low price for everybody, everywhere!

Go to the display room of your Chevrolet dealer and make your own inspection of this remarkable automobile. Note the sturdy construction of every unit—built to give years of service under all conditions of farm use. Observe the advanced modern design. Go for a ride—and know the thrill of Chevrolet performance.

Here is everything you need in an automobile—selling at a price that is possible only because of General Motors vast resources and Chevrolet's great volume production.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
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The COACH \$595

The Touring or Roadster	\$525
The Coupe	\$625
The 4-Door Sedan	\$695
The Sport Cabriolet	\$715
The Imperial Landau	\$745
1/2-Ton Truck (Chassis only)	\$395
1-Ton Truck (Chassis only)	\$495

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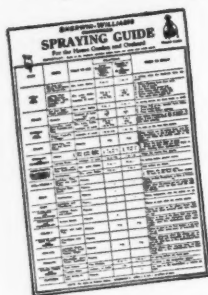
They include the lowest handling and financing charges available.

Q U A L I T Y A T L O W C O S T



The Sherwin-Williams 12½-pound bag is the last word in spraying convenience.

You can assure this fine color and finish by using *Sherwin-Williams Dry Lime Sulfur*



Get this
valuable Guide

The Sherwin-Williams Spraying Guide and other literature give complete directions for the control of all orchard and garden pests. There is an S-W dealer near you. Ask him for this helpful material or write us for a copy.

THE superiority of dry lime sulfur is today well established. Of this spray Prof. Ballou, a recognized authority in the service of the Ohio State Experiment Station, says:

"Our spraying experiments of recent years have shown the excellence of dry lime sulfur plus high grade hydrated lime when used in the pink of the fruit buds in the proportions of 3-5-50, and in 1½-5-50 strength for all sprays following the period of bloom, including the petal-fall application. We used this formula for three years in our own home orchard, and we even cleaned up a rather serious case of scab infection by use of this effective and wholly safe combination.

Some well-known authorities on spraying visited our orchard and saw the effects of spraying with this formula. They pronounced the foliage as luxuriant and clean, and the fruit as clear of disease, as any they ever had

seen. Moreover, this combination of dry lime sulfur and lime gives a smoothness and glossiness of finish of the apples that have been remarked by all who have seen the fruit at apple shows and elsewhere."

You, too, will marvel at the results produced by this effective spray. The new Sherwin-Williams 12½-pound bag is the last word in convenience.

Sherwin-Williams Dry Lime Sulfur assures:

Fine, smooth, glossy,
shiny finish

Superb color

No russetting

No scab

Scale free and 99%
perfect fruit

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640 Canal Road, N. W.
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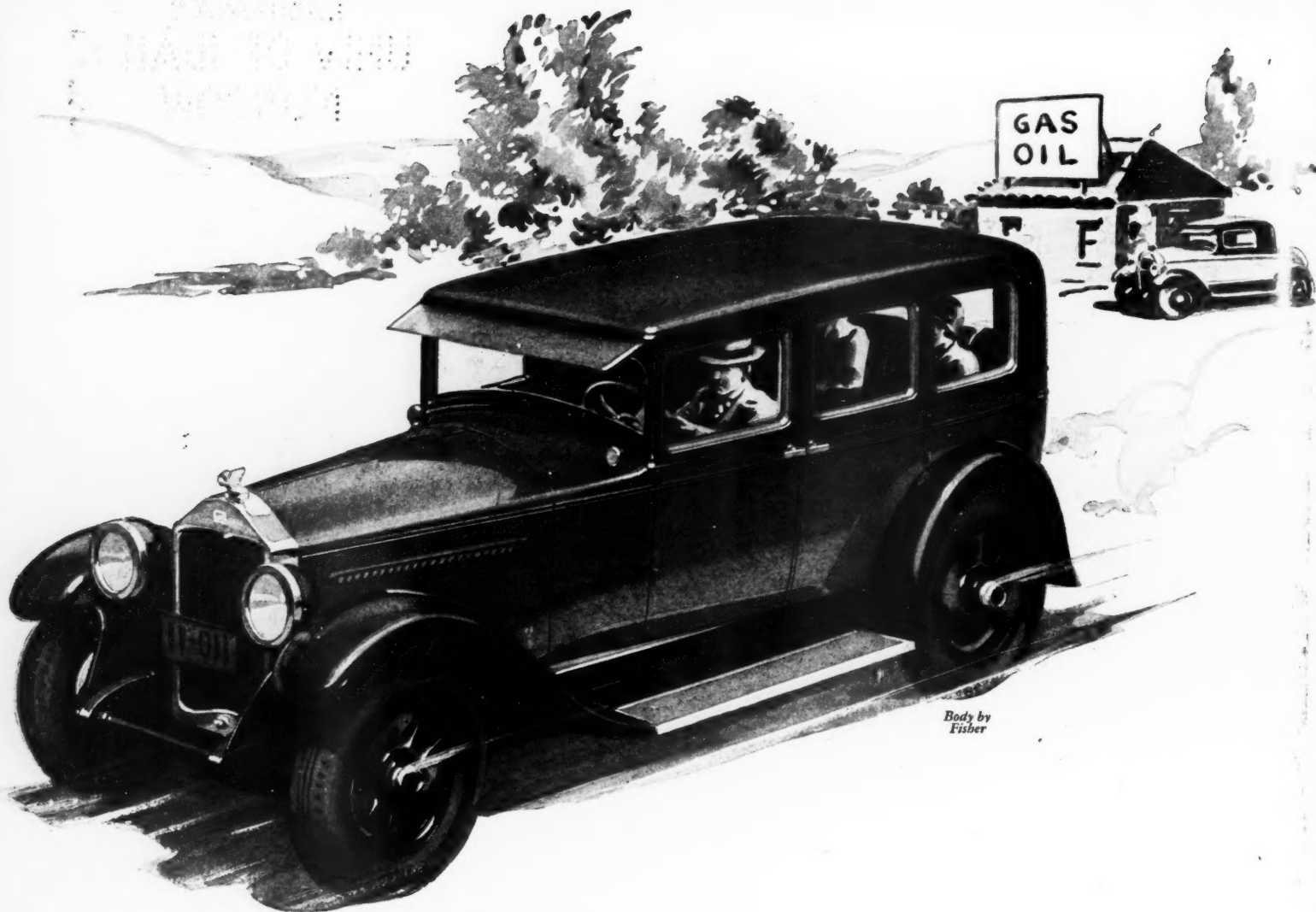
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SPRAY MATERIALS

AMERICAN FRUIT GROWER MAGAZINE



November, 1927
Ten Cents a Copy



You Need *Never* Change Your Oil if You Own a Buick

Last year Buick said: "Change your oil only four times a year."

Buick tests at the great Proving Ground of General Motors at that time had shown that oil changes would *never* be necessary, with the Oil Filter to remove impurities, and with the Crankcase Ventilator, Thermostatic Circulation Control and Automatic Heat Control to prevent oil dilution.

Now more than a year has passed, and Buick owners in every section of the world—under every climatic condition—have

also proved that you never need change your oil if you own a Buick—just add enough to maintain the proper level.

The trouble and expense of frequent oil changes no longer exist for Buick owners—replenishment and inspection of the Buick Oil Filter only are required.

This is but another of Buick's many contributions to the economy and efficiency of motor car operation . . . another instance of Buick's progressiveness . . . another indication of Buick's greater value.

BUICK MOTOR COMPANY, FLINT, MICHIGAN
Division of General Motors Corporation

BUICK *for* 1928

WHEN BETTER AUTOMOBILES ARE BUILT, BUICK WILL BUILD THEM